The Builder.

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SATURDAY, MAY 10, 1851.

MR. WEALE, in the volume entitled "London Exhibited in 1851,"* which he has just now published, has brought together a very large amount of information, amply illustrated by wood engravings. It contains 910 pages of letter-press, and is a marvel of cheapness. London, "enlarged and still increasing London," being the theatre of an event of high moral influence, the editor thought it "desirable that the stranger in our giant city should be made acquainted with its organisation and structure—with its trade and commerce—with the sources of its social and political greatness—with its many treasures hidden from the eye of the superficial observer. The aim of the present volume is to endeavour to effect this object—and in such a manner as not only to satisfy the mind of the learned and scientific inquirer, but to afford to the man of business and the sight-seer the advantages of a book of reference to those numerous depositories of art and science which abound in the metropolis, and which render such effectual aid towards the refinement of domestic life, by furnishing alike the means of instruction and amusement."

It consists first of general observations necessary to explain the natural situation and structure of our metropolitan city, with essays on those regulations which are connected with our political organization and constitution, habits, and working of the social system; after which distinct subjects are treated of, and a descriptive account given of the noble accumulations of works of art which London contains. This list is very large, and will surprise many who have lived here all their lives. Under the head of Statistics, some very interesting information is given. The architecture of London is treated of at very considerable length; and so, too, are "gardens," "observatories," and public institutions.

Being able to say so much of this book, we regret that the tone of it is such as would prevent most Englishmen from recommending it to foreign visitors. There is no occasion to point out to these our barbarism, weakness, and decline: they need no prompting to detect these matters, and are much more disposed to underrate than overrate anything they find in England. We have an indistinct recollection of an old saw against crying "stinking fish," and of another against the bird that "fouls its own nest." But the writer or writers of "London Exhibited in 1851" have a different notion, and abuse everything right and left: apparently they have no other object than to prove English art utterly debased and irretrievably lost. Admit this as a fact, which we do not, and even then a guide-book for strangers and foreigners by an Englishman is not the place where we should look for the exposition of it. Much of what we object to is very true, and very cleverly stated, but is wholly out of place. With the writer of the work before us, all modern works are mean subterfuges, make-shifts, and make-believes: we are in the "depth of inventive pauperism."

In the Temple church the design of the organ "and the other woodwork is a *forgery*;" the new Coal-Exchange will be considered "by foreigners of real taste and observation," the "most melancholy instance yet displayed of the state to which a once noble art may, by centuries of abuse, neglect, and false principles, be at length reduced;" and the new Houses of Parliament are treated little better. According to our author, we are precluded from—"all hope of our works again being graced with marks of genuine wide-spread refinement and real splendour, such as pervade and distinguish all those preserved from that brilliant age of our history comprised in the reigns of the three Edward Plantagenets. We may admire and *counterfeit*, but cannot *imitate* the marks of a civilization so far above ours. As the direction of the wind is known by a feather, so are the tendencies of a society to civilization or decivilization written, if we could but read them, in the most trifling works of luxury, even the ornaments of a tomb."

And then of the modern works at Westminster Abbey, he writes,—

"Of the south transept windows and their sham antiques, we would gladly say nothing; but there is in this last refuge of our arts,—this attempt to reproduce an effect without its cause, by simply exaggerating the *defects* of our fathers' works, by throwing away all advantages that they *had not*, instead of acquiring what they *had*,—thus wilfully combining all their works' unavoidable defects and all our own, with the merits of neither;—there is something in this so dismally pitiful, that even the open surrender of mind to matter, as in the monstrosities of modern engineering, seems less humiliating. One would think it should be disgrace enough to record in monuments what we *must perforce* show, viz. how much we have lost; without going out of our way to make it appear (falsely), that we have in six centuries gained nothing—no better materials from all our chemistry—no larger pieces from all our manufacturing pretension—no less clumsy construction from all our boasted mechanics—no finer workmanship from all our refinement—no more graceful design from all the opened stores of Greece and Italy—no richer variety from all our laboured collection of the brain-work of every age and clime; in a word, that six centuries have passed away to leave us not only *minus* the principal thing, but *plus* nothing."

Of the churches rebuilt since Wren's time, the writer says,—

"Out of thirty-eight old structures (all except four, anterior to the Reformation), some displaying the genuine splendour of the monastic architecture, and nearly all containing that abundance of refined thought by which the mediæval builders endeavoured to glorify God with the best of all He had given them; out of all these, only six have been replaced by buildings with any claim whatever to be considered works of thought. Shame would now gladly draw a veil over the rest of these disgraceful productions. It has been well asked, who could ever have anticipated in any previous stage of church architecture, and especially of its ancient glory in this country, that in the nineteenth century, an English church would come to mean four screens of plastered brick covered by about an eighth of an acre of plastered laths? To such a pitch did the constant pursuit of an object the direct reverse of art (viz. —*economy of thought*), at length reach. It is not the economy of handiwork in these buildings that offends us, for some of the Norman churches have nearly as little; and the ever-esteemed St. Sophia *quite* as little in proportion to its size. Still less is it their economy of material (a quality distinguishing the works of nature, and therefore a beauty in temples to the Author of nature). No: with all their parsimony, these frail tottering erections have no economy of matter; for, as a late architect calculated, about a fourth of what they contain is always useless burthen, and another fourth employed in supporting that burthen;—and the same author truly observed, 'What a shame is it to man, to pile up, in a rude coarse crazy and unhandsome manner, the good materials with which Providence has blessed him, to mar them by folly and ignorance [*wilful* ignorance in order to save thought] and to call such an assemblage of malformation *a temple!*' To object to these buildings for their fancied *plainness* is a double error: first, because plainness has no necessary connection with ugliness or profanity in building (as the Norman and Byzantine examples above-mentioned prove); and, secondly, because these odious works are the reverse of plain. *Plain!*—why everything visible in them is ornament. What is the ceiling?—what are its hanging mouldings and lumps of plaster?—what are the walls and all other surfaces?—what are the sham stone, the sham marbles, the sham oak?—what is every feature and appearance in the exterior?—the mode of arranging the bricks* to hide the real structure, the mode of counterfeiting in the windows the appearance of holes, the mode of disguising how the wall above them is supported, the mode of hiding the roof or its commencement, by keeping it behind the wall; and yet adding a sham cornice to counterfeit the effect of its projecting over? If all these things be not ornaments, what is their use? We assert that these hideous preaching-boxes are more ornamented than Henry VII.'s chapel, for their real structure is entirely hidden by ornament, within and without."

And then as to the churches of to-day in the revived style of the middle ages, he is equally complimentary, slashes about right and left, and condemns the whole without exception or reservation. Instead of pointing out to foreigners, as he might and ought to have done, the great ability which some of our architects have shown in modern churches, and specimens of the excellent workmanship they contain, the whole are classed together as miserable shams and disgusting puerilities.

St. Pancras Church; St. Luke's, Chelsea; the British Museum; the new buildings at the Tower of London,—all, of course, come in for abuse; in fact, it is difficult to find anything that escapes it. "London Exhibited" is but half its title; it should have been "London Exhibited in Bad Colours, and London Architects gibbeted."

We share, it is true, in the writer's indignation when he speaks of the interior of Westminster Abbey:—

"The sepulchral memorials that nearly fill the lower parts of this edifice are a subject we would fain leave untouched. The wide world presents probably no other such contrast as that between this matchless temple and the contents that profane it. History hardly suffices to establish so incredible a fact, as that one and the same people could descend in five centuries from *that* height of refinement to *this* unparalleled depth of vulgarity. In this spot are brought together, in their utmost intensity, the most opposite combinations of mental qualities—the noblest and the basest, the most lovely and the most odious that mute matter could by any torture be made to embody. Most humiliating is the thought that each of these things was once expected to please, was actually thought *beautiful*, when the very first step taken was the ugly brutal selfishness of hacking away the hard-thought, hard-wrought

* "London Exhibited in 1851;" elucidating its natural and physical characteristics; its antiquity and architecture; its arts, manufactures, trade, and organisation; its social, literary, and scientific institutions; and its numerous galleries of fine art. With 205 illustrations, executed by Mr. Robert Branston, Mr. O. Jewitt, Mr. J. R. Jobbins, and others; including a newly-constructed map, engraved by Mr. Wilson Lowry. Edited and published by John Weale, London.

* Technically the "Flemish bond facing."

labour of pious heads and hands of old, to replace it by some rude mass of marble as a foil to 'throw out' the new expression of private vanity. How revoltingly misplaced too is the shouldering, elbowing strife, with which, like advertising placards or rival shops, with every trick that can be devised for glaring prominence, they struggle to outstare each other, as if the very well-being of the defunct depended upon whose statue shall be seen first, or whose epitaph read oftenest. How calmly, amid all this feverish strife, lie the modest retiring memorials of the mighty or the worthy of old, from the dignified reposing figures of the royal Plantagenets to the unpretending brasses of the untitled and humble, if indeed modern selfishness has left any uncovered. No other nation possesses, or if possessing, could suffer the presence of so clamorous a witness of its degradation; and the time will probably come that the disgrace will be felt beyond endurance, the whole of the monuments since that of Islyp removed—those few that possess sculptural merit, to a fitter repository, the rest to be buried if possible in oblivion; and when the beauteous temple, cleansed from these defilements, and with the mouldings of its original decoration restored—for the carvings never can be—will contain only modest mementos of those really great or really buried within its walls, none occupying the floor, and none filling more than one window light, or one of the exquisite blank arches below, each of which affords ample space for any Phidias to mark with appropriate beauty the resting-place of any Newton, though not enough for vanity to supply the want of excellence by pomp and glare, nor to commemorate persons whose memory a pyramid could not by itself preserve."

We must now, however, close this notice, and must repeat the expression of our great regret that Mr. Weale should have made the great object of his guide-book, in other respects so valuable, the wholesale condemnation of modern English architecture and architects.

THE ROYAL ACADEMY.

On Monday, the 3rd instant, the Royal Academy of Arts inaugurated its eighty-third annual exhibition. More than usual anticipation of excellence was indulged in for this eventful season, when so many foreign visitors were expected to arrive among us with inquisitive eyes.

Generally speaking, the gathering of all kinds, numbering 1,389 works, may be reported as a very good one, being, in pictures, some considerable advance in quality upon previous annual occasions. Sculpture appears but scantily represented, and architecture, with four Royal Academicians and one associate, is not honoured by them with a single drawing. The dark room on the ground-floor has long been an opprobrium to the institution, and the sister art of architecture is now located in the despised octagon-room; a locality, however, quite good enough for the collection it enshrines. It is not right that the professors of architecture, who are members of the Academy, should withhold drawings of the great works in which they are employed. The public are in some degree entitled, if not by right, at least by courtesy, to see occasionally drawings relating to those undertakings which are paid for by the public money.*

By universal consent, historical subjects are always placed in the highest scale of pictorial art, and the present exhibition is more than commonly enriched with these ambitious emanations, although but few of them are imbued with the soul and sentiment of mental expression.

A large picture by D. Maclise, R.A. (67), represents Caxton in his printing-office in the Almonry, at Westminster, showing a proof sheet to Edward IV. It is a work of great skill and labour, the surface being crowded with figures and accessories, in which the painter has, as usual, not spared research for their authenticity. That it wants harmony at present must be admitted, but it is precisely such a picture as age will wonderfully improve in tone, and is, in fact, painted for posterity. Two other works of Mr. Maclise are portraits, both similar in a rigid pose, one being an already known portrait of Macready, as *Werner*; the other a small whole-length of Sir Edward Bulwer Lytton, in which our foppish race will wonder at and envy the singular long and narrow boots, outraged to caricature. "King Lear and the Fool in the Storm," by W. Dyce, R.A. (77), is about as repulsive a picture as this painter's previous works were agreeable. The infatuation of what is called the pre-Raffaellite school in Mr. Dyce's picture, here borders on the vulgar and grotesque, and becomes rather referable to some of the ancient vulgar impersonations of the Flemish Breughels. A study for the central figure of "Daniel, the Prophet," in a proposed composition now in progress, by J. R. Herbert, R.A. (84), is one of the few instances in the exhibition in which the purity of art is exalted by the sublimity of divine expression. This small and simple figure appeals to the higher feelings with perfect success. In a similar way, a female head of life-size, by the president, Sir Charles Eastlake (135), called "Ippolita Torelli," is imbued with such an intensity of feeling, that the spectator's eye becomes rivetted on the expressive features, and the speaking, almost breathing lips, with intense delight. This is, indeed, fine art in a high point of excellence. E. M. Ward, A.R.A. (185), has a very interesting picture of the "Family of Louis XVI. imprisoned in the Temple;" every part highly studied and carefully drawn, but perhaps too gay in colour for such a solemn subject as a noble family enduring the miseries of imprisonment. The "Battle of Roveredo," by C. Stanfield, R.A. (196), is one of this agreeable artist's most important and excellent performances, and will be viewed with great delight. "Hogarth brought before the Governor of Calais as a Spy," painted by W. P. Frith, A. (204), is a subject of felicitous choice, and is treated with considerable skill. The expression of surprise and uneasiness at the unexpected occurrence is perfectly understood in Hogarth's countenance, and it may almost be traced therein that his knowledge of the French language was sufficiently limited to create a confusion of thoughts in his mind. If Mr. Redgrave's new dignity of R.A. has induced him to take a higher flight in the realms of art, his admirers will have to regret the loss of more agreeable subjects than his "Flight into Egypt, with Mary meditating on the Prophecy of Simeon." The picture has, nevertheless, much excellence. The "Goths in Italy," by P. F. Poole, A. (344), is a glowing, rich, and powerfully painted work, abounding with the merits of careful drawing and well-studied draperies, but is hardly a well-chosen subject, from the inanity of the scene, and the vacancy of mental expression. The learned in chiaro-scuro will be puzzled to account for the distribution of shades and sundry crossing lights. A very ambitious work, by F. M. Brown, is entitled "Geoffrey Chaucer reading the Legend of Constance to Edward III." (380). Large as this canvas really is, it is crowded with figures in all kinds of attitudes and varieties of costume, forming a showy kind of *bal-masqué* grouping, with a complete absence of aerial perspective, and a deficiency in solidity. Yet it is a work of great merit in many of the parts, but they are ill put together. C. W. Cope, R.A. has a very fine work in three compartments, portraying "Episodes of the Sufferings of Laurence Saunders, a Protestant Martyr in the Reign of Queen Mary" (381). It is a most successful appeal to sensitive, pious feelings. The "Finding of Moses," by H. Pickersgill, deserves a better place than it has, being painted with great care. "Samson," by E. Armitage, does not sustain the promise elicited by this young artist's first cartoon exhibited in Westminster Hall. There is good drawing and considerable theoretical knowledge, but the soul of history is wanting: it is a display of school acquirements, and lacks both mind and colour.

A considerable number of clever and delightful pictures, which fall into the category of the historical, or rather the domestic historical, will afford pleasure. Among them may be enumerated "Pepys' Introduction to Nell Gwynne by Charles II.," painted by A. Egg; "Falstaff personating the King," by C. R. Leslie; "The Rescue of the Brides of Venice," by J. C. Hook, A.; "The Defeat of Shylock," by the same; "Hotspur and the Fop," by A. Elmore, A.; "Hylas," by W. E. Frost, A.; "A Scene from the Merchant of Venice," by F. Stone; "Hamlet and Ophelia (the King and Polonius listening)," by James Godwin (701); and many others of equal merit and beauty.

In the department of landscape, which is the stronghold of the English School, it is sufficient to say that F. R. Lee, R.A.; W. F. Witherington, R.A.; T. Creswick, R.A.; and Francis Danby, A., fully sustain their well-earned reputation: and among other admirable artists undecorated with the magical initials will be found a brilliant work by J. D. Harding, of "Bonneville, on the Road from Geneva to Chamouni." It is numbered 103; and by accident, in the alphabetical list of the exhibitors this gentleman's name is printed "Hardy." E. W. Cooke has some beautiful works: look, for example, at 589, "Bragozzi, the Fishing Craft of Venice." David Roberts, R.A., has four pictures of great beauty,—one of them of large size.

In animal subjects Sir Edwin Landseer, R.A., has contributed six pictures. Words have long since been exhausted in praise of this artist's performances: it is impossible, nevertheless, to pass over in a general admiration the "Scene from the Midsummer Night's Dream," which is as poetically conceived on canvas by the painter as it was by the lines of the immortal Shakespere. Sir Edwin Landseer has given an impersonation of Titania of such exquisite beauty, that it almost causes regret he should ever have painted animals. R. Ansdell has three excellent pictures in the same class. T. S. Cooper, A., has six cattle pictures, all excellent; one of them of extended dimension. This admirable artist—so peculiarly English in feeling—is perfectly remote from comparison with any of the ancient masters: yet the critics of the day scarcely ever name T. S. Cooper without wedging in the name of Cuyp. Now Cuyp was not a cattle painter: he merely introduced them as masses of colour for wondrous atmospheric effect. It is degrading to modern art to be everlastingly referring living painters to ancient types, notwithstanding the great merits of the latter. T. S. Cooper needs no bush, as the old saying goes: he is an original painter, possessing excellencies in the knowledge of structure and form of cattle superior to any preceding artist in the same line, and requires no comparison with Cuyp, or Berghem, or Vandevelde, to exalt his talents, or establish his acquirements.

As on all previous occasions of the Royal Academy exhibition, portraiture is abounding

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* A correspondent says:—"I am sorry to find that one of the three sisters at the Royal Academy is almost defunct. She has been declining for some years: she grows 'small by degrees and beautifully less,' and presents a most pitiful appearance.

"Why should poor Architecture play Cinderella to her other sisters? Is she less beautiful or less useful than they, or has she fewer admirers? I think the answer to each of these questions would be in the negative. Then there must be some other reason for her present sorrowful plight. What have the doctors been about? Has she been skilfully treated, or has she been neglected? I think, Sir, you will say with me that the latter is the truth, and that architecture will soon be turned out of the Academy as incurable. Where are her professors? They cannot be aware of the present crisis. Are they not by their own inactivity gradually assisting themselves out of office? Unless they bestir themselves, at a period not very distant, their occupation will be gone.'

"There is still, however, a chance left of the poor invalid's recovery. Let architects take her by the hand and lead her out of this 'Slough of Despondency.' Let them try what change of air will do for her: in short, let them have an exhibition of their own. The experiment has already been tried, and, considering the small number of its active supporters, has had a fair portion of success.

"Architects can plainly see that the greatest number of drawings that can possibly be crammed into the Octagon Room, will never make an architectural exhibition worthy of this country. They must not let the public suppose that Architecture as an art is lost for ever, or that the ideas of *all* its professors are confined to mere bricks and mortar. Let them show their *representatives* at the Academy that they are progressors not retrogrades, and prove to those gentlemen that if they wish to regain confidence they must move much faster. Allow me to urge the great body of architects to support, either by subscription or by the production of drawings, an annual architectural exhibition, and thus to show that Sister Architecture's case is not quite hopeless."

Cardinal Wiseman, by Brigstocke, in the gorgeous habiliments of the Romish Church, comes pompously forward. "A Falconer," by H. W. Pickersgill, R.A. (8), is a fine piece of colour; and the same veteran artist exhibits his usual number of excellent portraits. J. P. Knight has an admirable portrait of Mr. Barry, R.A., and Sir J. W. Gordon's portrait of Dr. Conolly is very successful. The miniature room is well filled, and richly adorned with the elaborate works of Sir William Ross, R.A., R. Thorburn, and T. Carrick. Here friends may linger with gratifying pleasure on well-known features, or revel in the graces of feminine form and personal beauty, with which these small gems of pictorial skill abound. Water-colour drawings are almost entirely absent from the walls of the academy.

Before ending the present remarks, some slight notice becomes necessary on the aberration of the true destiny of art, as expounded by Messrs. Hunt, Millais, and a few other misled aspirants. The pitiful and feeble aim of incorporating ugliness of feature and form with the rude interpretations of art, when emerging from total darkness into a dawning light, can only tend to the degradation of the individual perpetrators. The pictures of the antecedent artists of Raffaelle in Italy, never disgusted the senses by the brutal impersonations of human form and feature now promulgated. If ill or stiffly drawn, there was always the divine sentiment, the faintly developed grace, and regularity of feature. If the public could enjoy the opportunity of studying Lord Ward's collection of the early Italian masters, they would, in the pictures of Crivelli, and particularly in those of Fra Angelico, at once discern that the so-called pre-Raffaellites are as remote from the aim and inspiration of the ancient Italians, as the disgusting baboon in form and feature is dissimilar to the virgins and angels of the divine Raffaelle.

The great number of works hung on the walls of the Royal Academy would occupy a thick volume to notice: the mere catalogue alone fills sixty-four quarto pages, and contains the names of 700 artists of all grades. We shall find an opportunity to return to them. Of the architectural room we shall speak next week.

THE GREAT EXHIBITION.

"BUILDING CONTRIVANCES."

A PARALLEL to the great IDEA of the gathering of the nations in the International Exhibition, there has certainly not been since the dispersion of their respective forefathers from the tower of Babel, whatever those kiln-dried bricks, "the critics," may say to the contrary. Nay, although the tribes dispersed as the germs of those populous nations who have now, for the first time, reassembled in any thing like equivalent universality, were to "multiply and replenish the earth" as their great industrial task—it needs little poetic imagination to regard the ambitious heaven-stormers as a set of bungling apprentices in construction and industrial science. We know not what those "artificers in brass and in iron"—those builders of cities and makers of tents—those "handlers of the harp and organ"—and other industrials who lived before the Flood could have done by way of getting up a "Great Exhibition," but assuredly since "the world that then was" perished, "the sweat of the brow" of man has never till now—not even in "the building of Solomon's Temple and the chambers thereof," when "there came of all people—from all kings of the earth," to "hear the wisdom of Solomon," and when "Solomon had threescore and ten thousand that bare burdens, and fourscore thousand hewers in the mountains besides the chief of Solomon's officers which were over the work," and Hiram's builders as well as Solomon's labourers—not even then, and never since, has the sweat of man's brow been the exponent of so much industrial wealth and magnificence exhibited under any one roof.

The *coup d'œil* is, indeed, magnificent. The impression of grandeur with immensity must constitute a new experience, we should think, to every one on entrance. No less impressive is the counter-sense of one's own bodily insignificance in the midst of such an expanse of construction with such a display.

Were we to allow ourselves to be carried away by every impression as it arose, and guided our steps, as we entered and turned our attention on details more or less prominent, we certainly should not reach our more immediate purpose within the limits of the present article. We shall, therefore, confine ourselves to that purpose, and wend our way at once to the far-off gallery, in which we find "Class VII.: Civil Engineering and Building Contrivances,"—merely indicating a few of the more prominent articles standing in our way as we move westward through the district devoted to the—united kingdom we were about to say, but here all kingdoms are united.

First, however, let us briefly describe the safe for the Koh-i-noor, the mountain of light, which has been contrived by Mr. Chubb. It consists, first, of an octagon table 6 ft. 6 in. in diameter by 3 ft. 4 in. high, the top and sides being made of ½-in. wrought-iron plates, all secured together by being rebated and with angle iron. In the interior is a fireproof safe 12 in. square, and 2 ft. 9 in. deep, the wrought plates being 1 in. thick. In the centre of the safe is a platform 9 in. square, on which the velvet cushion, jewels, and setting are fixed. A hole is cut out of the table to allow the platform to descend into the safe. In order to secure the diamonds at night, a small door 3 in. square, in one of the panels of the table, is unlocked, and by turning a winch the platform gradually sinks into the safe, and a sliding iron door is drawn over the opening at the top.

The cage is secured to the table by ⊥ pieces at the bottom ring dropping into corresponding holes, and these are locked by two separate detective locks: the keys of these locks are held by the crown officers; and without them access to the jewels cannot be had. The key of the small door allows the platform to be raised or lowered only, but does not give access to the jewels. The weight of the whole is 36 cwt., and it is bolted to the floor.

A consideration of this piece of *charcoal-in-another-form*, and its assumed value, induces reflections on what constitutes *worth* in the eyes of the world.

Near to the transept will be seen Cundy's restoration of Queen Philippa's monument, which we mentioned before it came here, and behind it is a Gothic monumental tablet in Caen stone, by A. A. Mather, parts of which are very nicely carved. Some modern brasses, by Archer and by Gould, will be observed here.

The spandrell from Hereford Cathedral, carved by Boulton and Swales, is more coarsely executed than we should have expected from them. Part of an altar front, by the same, from St. Mary's, at Greenwich, shows better work. Close by is the Mediæval Court, but we must speak of this another time.

One of the more prominent ornaments in the western wing, as we pass along the central space, is a great Corinthian column in papier maché, executed for the bank at Adelaide, New South Wales, by Mr. C. F. Bielefeld, of the Strand. Another is a design by Mr. W. Harris, of Screenwork, with various other specimens, in minor detail, of Jordan's machine carving. The rustic dome or temple of bronzed cast-iron from the Coal-brook Dale works has already been noticed by us. Several marble chimney-pieces also form prominent central objects: one of these, with statuettes, was executed by Mr. J. Thomas, of Paddington; another with steel grate and fender, gilt mouldings, &c., has on it the names of Mr. T. Sharp, Burton-crescent, and Messrs. Brine, Brothers, St. Pancras.

The first article which we noticed particularly amongst the seventh class articles, was a model (No. 111) of Taaffe's patent for roofing houses. The principle is that of ɪ cramps and screws or nails. Each line of junction in the slates, or plates of glass, is accompanied below by a zinc gutter, across which the cramp is placed. The roofing is, as it were, snibbed down upon the gutter. Near this model is an "improvement of Taaffe's patent slating," registered by Mr. H. H. Russell, Architect. In this each slate is secured at all the four corners, and any single slate can be removed and replaced without disturbing others. It is stated on the part of Mr. Russell, that "the tail or lower course, on Taaffe's principle, was secured only by screws through the surface of the slate to the timbers beneath;" but on his present model the mode claimed by Mr. Russell is adopted. The latter inventor has here also a model of his patent principle for suspension bridges, in which the two chains on each side of every division cross each other, in curves descending from the tops of the adjoining piers, and crossing beneath to the lower part of the piers opposite. Russell's speedy lewis is also exhibited.

No. 121 is Neale's prize machinery for sweeping chimneys. The main principle of this machinery consists in the adaptation of india-rubber as an universal joint, and in such an arrangement of the ordinary apparatus, with jointed brooms of whalebone, as enables it to sweep chimneys of the most awkward shapes and sharpest angles, passing the soot as it ascends, but sweeping it down as it descends. The risk of injury to the mortar and brickwork of the chimney seems to be also diminished by the working of this apparatus, which we understand was invented by Mr. Every. Mr. Neale is the honorary secretary to the committee for awarding the medals for the best chimney-sweeping machinery. In connection with this apparatus, there are also prize plans and estimates for altering awkward chimneys.

Amongst the models are some plans of safety window-fittings. No. 126 is the model of Mackie's patent; No. 127, that of Roberts's. The object of these inventions is to enable servants to clean, or glaziers to repair, windows with facility, and without adopting the dangerous practice of standing outside the framework. In Roberts's the sash is held in its place only by brass grooves and sliders, to which it is bolted or snibbed. The withdrawal of the bolts enables the brass sliders to be run out of the grooves, when the sash is at once disengaged. Mackie's patent, it is stated, can be easily applied to windows of old as well as of new construction, and to sashes of any size. In this case, too, the sash is made to glide out freely, the weights being connected to the moveable piece left behind. No. 147 is Theobald's improved window sash, with alarum and fire-escape. Here the windows are so made that the sashes open like doors on hinges. The alarum is a bell, as suggested by ourselves, connected with the sash. The number of fire-escapes shows how alive the public mind is to danger from fire, and how desirable fire-proof buildings must be. We cannot say that much novelty appears in this department, so far as we could discover. One is in form of a scaling-ladder which issues from a chest like a Jack-in-the-box: we have seen a toy like it; but the idea is a good one. The ordinary fire escapes are rather unwieldy articles. Another consists of neighbourly preparations beforehand by help of wire ropes and baskets to be always ready hung on brackets from house to house and called the "Universal Fire Escape."

No. 151, Allen's registered fire-proof iron roof, is a model showing the principle applied to a roof of 50 feet span. The slates are tied, in fact, by iron wire, to iron rods, which constitute the framework of the roof. No. 156 is the model of an emigrant's house made of Morewood and Rogers's patent galvanised tinned iron, corrugated. It is made with a double body, to render it cool in hot climates or seasons, and warm in cold. No. 170, model of a portion of the roof of Dolfor church—model of a roof constructed with ribs of terra cotta—and model of stone or of terra cotta mullioned window—are models on a considerable scale, and are worth looking at. Near these is a section of the Tamar silver lead mine, in Devonshire, with its underground engine and shaft, already described in our columns. A model gas work (No. 171) was ticketted when we saw it—model dwelling for artizans. Here,

by the way, we may remark that there is not yet that current order in the numbering which we expect shortly to see: we had some difficulty, and spent no little time in vain endeavours to hunt out special numbers on the authority of the catalogue, and where they ought to have been found.

Amongst a variety of other notes which we made on this and other classes of exhibited articles, we observe one as to "hollow building blocks for the speedy and economical erection of harbours, docks, wharfwalls, seawalls, embankments, houses, warehouses, sheds, and other buildings, which can be manufactured of potter's clay, Stourbridge clay, brick and tile earth, cement, asphalte," &c.; also (No. 5) "Asser's blocks for building to cause equal distribution of pressure," and which are described on the model as of stone, iron, wood, &c., and "for construction of arches, bridges, tunnels, breakwaters, &c. &c., and for any other architectural purpose." The weight of the bulk, or of any superincumbent pressure, is thus designed to be distributed over and shared by the whole mass. The blocks are intended to interlock into an inseparable structure, the most novel feature of which consists in its forming arches, flat spans, &c., without a keystone.

BRISTOL SOCIETY OF ARCHITECTS.

THE first annual meeting of this Society was held at the Society's Rooms, Small-street, on Monday, the 5th. Mr. C. Underwood presided, and in the course of his observations said that Mr. J. S. Harford, of Blaize Castle, had accepted the presidentship. The Chairman said, —For the introduction and inculcation of the correct principle of Roman architecture in Britain, we stand, I believe, more indebted than we are aware to the learned men of the fifteenth and sixteenth centuries, who, in the reign of Elizabeth, and still more of James I., brought in with them from their travels a love of the modern Italian style of architecture, based on the principles and taste practised in the most palmy period of the Roman empire. Considering that architecture has been admitted to be and is indebted to men of science, learning, and research in all ages, it is, and should always be, the endeavour of this Society to cultivate the acquaintance of men of science and of letters, assured that by such a course they will acquire a more varied store of useful information, which may often be made to bear upon their peculiar art.

Mr. J. A. Clark, honorary secretary, then read the first annual report of the Society, which contained the following paragraphs:—

"Amongst other subjects, two of great importance have been under the consideration of the council, viz. competition amongst architects and amongst builders. With respect to the former a list of suggestions to committees advertising for designs has been drawn up, and though not by any means so perfect as they may yet be made, still, as they touch on those particular points in which experience has shown errors and injustice most frequently arose, it is hoped that their local use will lead to an improvement on the system hitherto pursued. The council are happy to be able to state that already their suggestions have been well received, and attended to in material points by a committee of gentlemen, who lately advertised for designs in this city.

An arrangement with the builders, associates of this society, to effect, if possible, a more equitable mode of proceedings in trade competition and other matters has also been made, which, it is hoped, in course of time, will lead to beneficial results: this, however, can only be expected where a general determination is shown to abide strictly by the means proposed, whenever practicable, and by mutual confidence in integrity of purpose, when unavoidable circumstances interfere. This being a subject of acknowledged difficulty, the more calls for calm and honest perseverance.

An union with the Society for the promotion of the fine arts, has been concluded, from which the following privileges are derived. The fellows are admitted in the academy on the same terms as their artist members, seven being elected full and voting members of the general body of artists, one of whom will be annually chosen to act as representative of this society on their committee of management. The graduates and students of this society are admitted to all the privileges of the associates and students of the academy. In future exhibitions a space is to be reserved for architectural works exclusively. The opportunity thus afforded to architects to exhibit their designs, at the same time as the artists' pictures, is a great advantage, one which, it is hoped, will, on future occasions, be borne in mind."

WHO CAN MAKE A BUILDINGS ACT?

IT has been evident to us for several weeks past that Lord Seymour's Buildings Bill would not be proceeded with, and we have therefore avoided occupying space by its discussion. His lordship has now formally withdrawn it, and it seems pretty clear that we shall have no measure on the subject passed this session. The following communication was in type before the withdrawal of the measure.

Lord Seymour, in his Bill, attempts the impossible task of laying down rules of construction that shall be universally applicable. To succeed in such a task two things are requisite: first, that the art of architecture should have been perfected; lastly, that those who framed the regulations that are to govern construction should have completely mastered that art. As constant improvement in details of construction proves that art is still advancing, and as doubtless future advances far beyond what we can now perceive must be expected, it follows, that to fix rules of construction by law is to stop, or, at least, most materially to retard, that improvement which it is the interest of the whole community to have promoted. The Bill, however, would not only materially retard future progress, but would also prevent the adoption in London of new methods of building which have been proved to have, under certain circumstances, important advantages. For instance, walls of hollow brick may be built so as to be as strong as those of common brick, though thinner and cheaper: such are also warmer and drier. Whether or not their advantages are as great as their advocates expect, surely their use ought not to be prohibited by Act of Parliament; yet such would be the effect of enforcing walls "built so as to produce solid work," and of such thickness as the Bill prescribes, which would render the employment of hollow bricks not economical. The Bill proceeds upon the principle, altogether fallacious, or, at least, subject to innumerable exceptions, that the stability of a building depends upon the thickness of its *external* walls. Now, it is very evident that the *internal* walls may carry much of the weight, and, besides, by acting as buttresses, contribute very materially to the strength.

Again, walls may be built so that the weight shall be carried entirely by iron pillars, or other supports; yet, because the building is of a certain size, its walls must be of a certain thickness: further, it is clear that there is no invariable proportion between the size of a building and the strength necessary for its walls, nor between the strength of its walls and their thickness. Yet upon such presumptions the Bill is founded!

Again, the Bill prescribes numerous regulations with respect to flues and channels for the conveyance of heated air, which, as *general* rules, may be very proper, but to which exceptions ought to be freely permitted. For instance, it is quite right that no woodwork should be placed near to a channel conveying *hot* air; but such a rule need not be applied with respect to air which is only to be gently warmed, say by warm water or steam, and the prohibition of pipes conveying steam or hot water near to woodwork is a useless and vexatious interference, except indeed with regard to pipes in which water heated under pressure is to be conveyed. Such rules, unless exceptions be freely admitted (which, if a lawyer is to judge, is very unlikely), will not merely entail upon builders unnecessary expense and annoyance, but throw great obstacles in the way of improved modes of warming and ventilating buildings, and thus retard sanitary advancement.

Though Lord Seymour professes that his Bill is to protect the health of the inmates of buildings, it contains few regulations of a sanitary nature, and most of these few are very unsatisfactory. For instance, though it prescribes a *minimum* width of new streets, it does not limit the height of the buildings in proportion to the width of the street, as is done by the local Act of Liverpool, which provides that no building shall be erected so as to exceed the width of the street in which it is situated. The observance of some such proportion is evidently requisite to secure the full benefits of light and ventilation. Again, the Bill provides that no room without a window towards a street or alley shall be inhabited. This provision will not prevent the erection of houses back to back, which cannot be properly ventilated, and are necessarily insalubrious. The construction of cellars for habitation is not prohibited, as they are in places where the Public Health Act is in operation, nor are the regulations for existing cellar-dwellings in the Bill so protective of the public health as those of that Act.

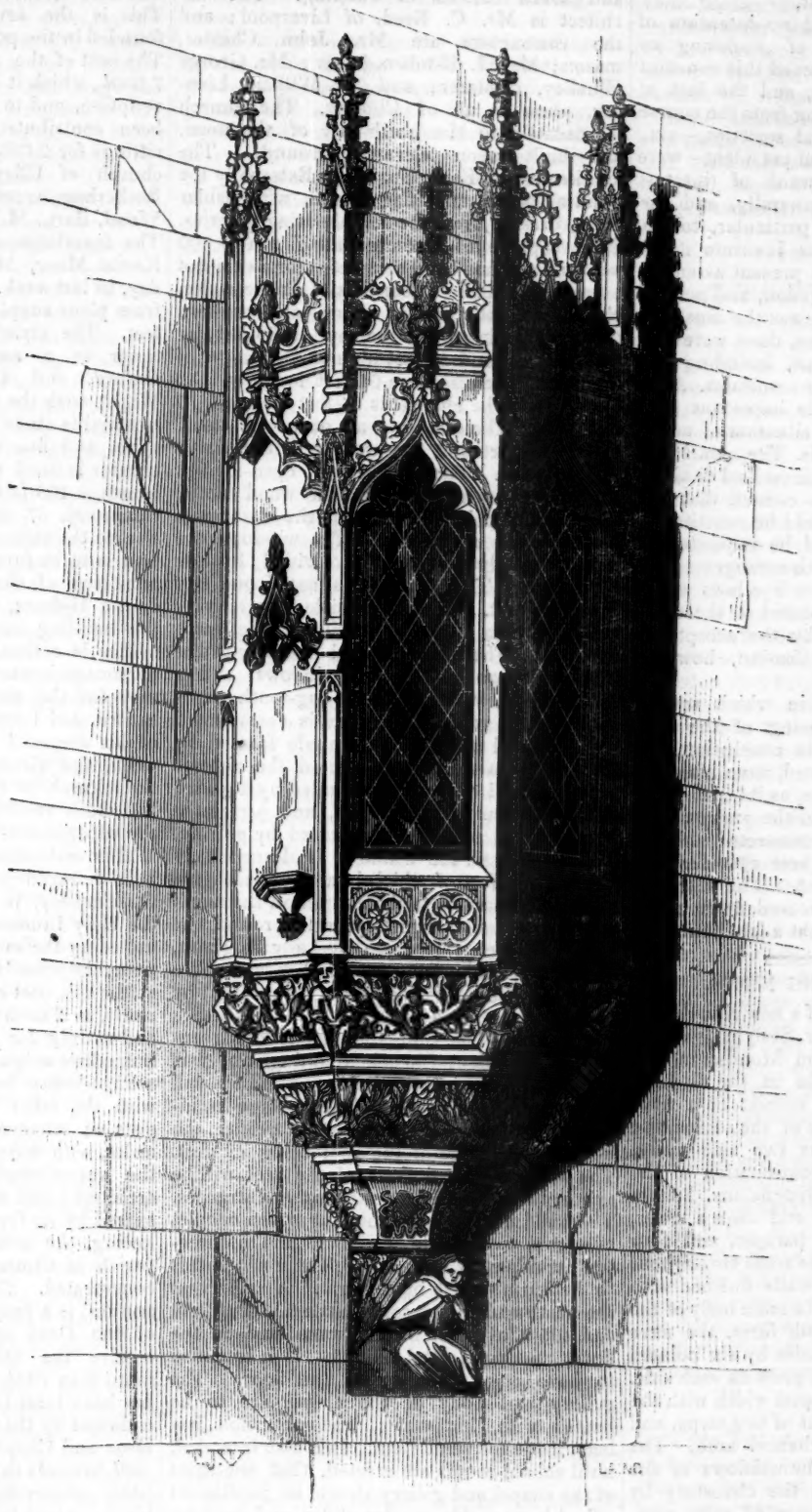
The provisions that no dangerous manufacture, such as gunpowder or firework making, and no noxious or offensive trade, such as bone, blood, or soap boiling, shall be commenced within 50 feet of any building, are too glaringly ineffective to be regarded as sanitary precautions. If any such businesses are carried on to such an extent as to be dangerous or noxious at all, the interval of 50 feet is no protection against the evil: if they are carried on to so small an extent as not to be dangerous or noxious, it is unjust to interfere with them. On either supposition the proposed enactment is absurd, and must be injurious.

It is clear that legislation of details on such subjects is impossible, without on the one hand enforcing conditions which in many instances must be oppressive and injurious, and on the other leaving uncontrolled evils of great magnitude. As it is unlawful to sell food which is unwholesome, so ought it to be unlawful to let a house which is insalubrious; but as penal legislation on such a subject would be attended with serious evils and inconveniences, the best way of effecting the object appears to be by enacting that no house shall be let or re-let unless, after examination by a competent and responsible officer, it be certified to be reasonably safe against the dangers of fire or of falling down, and in all respects fit for the habitation of human beings; that is to say, sufficiently ventilated, lighted, drained, and supplied with wholesome water. If, instead of the cumbersome, ineffective, and inordinately expensive legislation with which Lord Seymour threatens us, the simple principle were adopted of allowing every man to build his house in his own way, on the simple condition that, before being let, it shall be certified as to its fitness as a place of habitation, the progress of the art of building would not be needlessly impeded; useless expense would not be imposed upon builders; novel and improved modes of construction would not be prohibited by Act of Parliament; while the public health and individual security would receive real instead of fictitious protection.

H.

FOUL AIR PUMP.—Mr. R. Simms, of St. James's-street, Liverpool, has invented a machine for pumping foul air from cesspools or the holds of ships. It has been tried before the officers of the health committee and several scientific gentlemen, at a huge tunnel midden under Corfe's buildings, Preeson's-row. Three night-men were, in the first instance, sent down into the tunnel, which was closed upon them, and the machine was then set in motion, which evidently discharged the foul air rapidly. The men stated that when they first went down, the foul air powerfully affected them; but as soon as the machine commenced working they felt a sensible relief; and when it had been in operation a short time the usual effects of the foul gas were not experienced.—*Albion.*

ORIEL WINDOW, FROM JOHN OF GAUNT'S PALACE, LINCOLN



ORIEL WINDOW, JOHN OF GAUNT'S PALACE, LINCOLN.

IN the course of last year this very beautiful specimen of the art of the 14th century was sold by the owner of the house to which it belonged, and was bought by Lord Brownlow. It was then presented by Lord Brownlow to the county magistrates, who ordered it to be put up in a narrow court in the entrance of Lincoln Castle. It was placed in its new position under the care of Mr. E. T. Willson, architect, of Lincoln, well known to most of our readers.

SYON HOUSE AND NORTHUMBERLAND HOUSE.—The Duke of Northumberland, with much good feeling, is affording facilities for an inspection of Syon House, Isleworth, and Northumberland House, Strand.

ANNUAL MEETING OF THE INSTITUTE OF BRITISH ARCHITECTS.

THE annual meeting of the Institute took place on the evening of the 5th inst., at the apartments of the society, in Grosvenor-street. Mr. C. Fowler, V.P., in the chair. The report and auditor's account showed that the Institute had obtained an accession of seven fellows and sixteen associates during the year, and that the funds had improved, as compared with the corresponding period of last season, by the total amount of 123*l*.

The report contained a reference to the lamented loss of the Marquis of Northampton and Sir Robert Peel, honorary fellows, and of some foreign members. It regretted the want of interest taken by the younger members of the profession in the competition for the medals offered for the best essay and the best design in architecture, and reported that *there were no competitors whatever* in either class. With a reference to the new Buildings' Bill, some praise of the newly-founded Architects' Benevolent Society, and the subscription to Dr. Layard and his researches, the report closed.

A discussion followed on the Buildings Bill, and on the other matters touched upon in the report, but of no great interest or importance.

The election of officers was the next business of the meeting, and on the motion to suspend "the bye-law 23, sect. v.," which declares "that no person who has filled the office of president for two years shall be again eligible to the same situation until a year's interval," an objection was taken that this motion was illegal, there being power in the charter and bye-laws to "alter, vary, and amend bye-laws," but not to suspend them. The Chair-

man overruled this objection, and the motion for suspension of the bye-law in question passed. On the motion for the re-election of Earl De Grey as president,

Mr. Tite said that he had no intention of opposing this motion, nor of proposing an amendment, but that he believed this constant re-election of the president, and the fact of the Institute thereby departing from the course adopted in almost all learned societies,—viz., that of electing a professional president—were the main causes of the want of interest evinced by the profession generally, and the leading members of it in particular, to the value and advantages of the Institute itself. He adduced the state of the present assembly as the best proof of his allegation, and pointed to the fact that though this was the most important meeting of the session, there were only twenty-four persons present, including two secretaries, and three or four associates. After some further remarks on this important subject, referring to the present situation of architecture as a profession, Mr. Tite concluded with a well-deserved eulogium on Earl de Grey, and by suggesting to the council that the office of "vice-patron" should be constituted, which Earl de Grey should be requested to accept permanently, by which arrangement all difficulties connected with the bye-laws would be avoided, and a position placed at the command of the Institute worthy the acceptance of any member of any profession, however distinguished.

A discussion followed, in which several members took part, approving of the proposition thus made; and, in conclusion, the chairman of the meeting stated, from his early connection with the Institute, as its first secretary, the causes which led to the present state of things, and the difficulties connected with any remedy, but promised the best consideration of the council to the subject. The elections and votes of thanks then proceeded as usual, and the meeting adjourned, at a late hour.

CHURCH BUILDING NEWS.

THE chief corner stone of a new church and schools at Castle Hall, near Stalybridge, diocese of Chester, was laid on Monday in last week. The church will be in the English style of 15th century, and consist of a nave and aisles forming the body of the edifice, the nave rising higher than the two side aisles, and at the east end, in continuation of the nave, is a chancel of ample dimensions. Immediately opposite at the west end rises a tower, surmounted by embattled parapet, and four pinnacles at each angle. The roofs throughout are of a flat pitch, and the walls finished with a plain parapet. Internally the main body of the church is of a parallelogramic form, the nave being separated from the aisles by six pointed arches, supported upon five piers on each side. The chancel, which is of equal width with the nave, is entered by an ascent of two steps, and separated therefrom by a chancel arch. The church will be lighted by the windows of the aisles upon each side, and the clerestory by the smaller ones over the apex of each arch. The timbers of the roofs, which are of a simple construction (the principals resting upon stone corbels), will be exposed to view, and together with the pews, seats, doors, &c., will be stained dark, in imitation of oak. The interior will be illuminated by gas. The body of the church is 70 feet 9 inches long by 50 feet in width internally; the chancel 30 feet long by 19 feet 6 inches wide. There will be accommodation for 800 persons, including children. The churchyard will be enclosed by an iron railing of simple character. The architect is Mr. E. H. Shellard, of Manchester, and the contractors are Messrs. Eaton and Hollis, Ashton-under-Lyne.——On Monday in last week the foundation-stone of a new Baptist chapel was laid at Claremont-terrace, Bridge-street, Strangeways (Manchester). The chapel will be in the pointed style, of brick with stone dressings, and seating about 350 people without side galleries, or about 600 in the event of these appendages being found necessary. Under the chapel will be school-rooms to hold nearly 400 children. Mr. Lane is the architect: Messrs. Haywood and Horsfield are the builders.——St. Peter's Church, Chorley, is just completed. It has occupied one year and seven months in building. The architect is Mr. C. Reed, of Liverpool; and the contractors are Mr. John Chester, mason; Mr. H. Hitchen, joiner; Mr. George Whalley, plasterer; and Mr. William Livesey, plumber, all of Chorley. The church is situated to the north-east of the town, and built upon elevated ground. The architecture is Early English. Externally the building is of small flag stones, with ashlar coins, dressed, from the neighbouring quarries. It is capable of accommodating nearly 800 persons, and has been completed for a sum not exceeding 2,000*l.* It consists of a nave, aisles, chancel, north porch, vestry, and western turret. The length of the nave is 66 feet, by 24 feet wide, and 47 feet high to the ridge of the roof. The aisles are 64 feet long, and 12 feet high. The chancel is 24 feet long and 18 feet wide. The seats are all open. A small gallery is erected at the west end, the width of the nave. The roof is of open-framed timber work, which, with all the wood work, is of stained oak. The roof of the chancel is boarded and ornamental. The windows are lancet, mostly in couples, divided by low buttresses. The porch is situated one bay from the west. Above the aisle, the interior is lighted by a clerestory, having single lancet windows. There is a central doorway at the west end, two long lancet windows, and a *vesica piscis*, surrounded by dog-tooth ornaments in the gable. The apex is surmounted by a floriated cross. In the angle formed by the projection at the nave beyond the aisle is placed a bell turret, surmounted by a gilded cock. The turret is octagon, and perforated by decorated arches, surmounted by gablets. The glass of all the windows is deepened in shade, the effect of which is a subdued light. Closely contiguous to the church on the north side is a spacious cemetery, walled round, the land for which was given by Lady Hoghton, of Astley Hall. The requisite funds for the erection of the building have been raised by subscriptions and grants from charitable societies.——The foundation stone of Greenfield Independent Chapel, Manningham, was laid on Monday in last week. The edifice will be in the early English style of village architecture, 68 feet in length by 34 in breadth, the height to the ridge of the roof being 42 feet. The whole of the timbers of the roof will be exposed to view. There will be two entrances. The building will be lighted by seven couplet windows, two single windows, and a three-light window at each end. The north end is to be surmounted by a turret. A gallery at the north end will accommodate 230 children, and 405 adults will be accommodated on the floor, making a total of 635. It is intended to have open benches on the floor. The gallery and body of the chapel are to be heated with hot water, and provision has been made for ventilation. It is also intended, until school-rooms are erected, that one-third of the chapel and gallery should be partitioned off with moveable wooden slides, and used for a Sunday-school. The architects are Messrs. Andrews and Delaunay, of Bradford. The cost of the chapel, exclusive of land, is expected slightly to exceed 1,000*l.*——The churches of St. Luke, Morton, and St. Mary, Riddlesden, parish of Bingley, were consecrated on 23rd ult. The consecration of St. Mary, built more than three years ago, was delayed, in order that St. Luke's might be set apart first, and then become the mother church of the district.——The first stone of a Primitive Methodists' chapel was laid at Hull on Good Friday. The exterior is to be in a modified Italian style, with brick pilasters, and stone cornices, architraves, and pediment. Internally it will consist of a floor and gallery, unitedly to seat 1,100 persons. Extensive school and vestry-rooms are placed beneath the chapel. The dimensions of the building are 78 by 60 feet, with orchestra at the end, the height of which from the floor to the ceiling will be 38 feet. The architect is Mr. Sissons, and the contracts have been let to Mr. Musgrave and others.——On Friday in week before last, the foundation stone of the New District Church, dedicated to St. Mark, in the parish of St. Pancras, Middlesex, was laid in the Albert-road, Regent's-park. This is the seventh new church recently founded in the populous parish of St. Pancras. The cost of the present erection will be about 7,000*l.*, which it is proposed to raise by subscription, and to which 3,000*l.* have already been contributed. The church will contain sittings for 2,000, two-thirds free.——The new church of Ulley, parish of Treeton, near Rotherham, erected at the sole cost of Sir C. Wood, Bart., M.P., has been consecrated.——The foundation-stone of St. Paul's Church, Kersal Moor, Manchester, was laid on Monday, in last week. The building will be erected from plans supplied by Mr. A. Trimen, architect. The style will be perpendicular. The tower is a composition from Magdalene, Oxford, and Carisbrook, in the Isle of Wight, with the addition of a lofty spire. The material is stone for the whole of the walls and spire, and fine stone for the dressings. The interior is lined with brickwork. Its extreme length is 135 feet; the width (exclusive of the transepts), 67 feet. The tower and spire will rise to the altitude of 150 feet. Accommodation is to be furnished for 1,280 persons; and one-third of the sittings will be free. Mr. James Holmes, of Lancaster, has undertaken the building contracts. The total cost of the edifice is estimated at about 6,000*l.*; of the parsonage-house, 2,500*l.*; and 1,000*l.* is necessary for the endowment. Mr. R. Gladstone contributed 1,000*l.* as a tribute to the memory of his deceased wife.——On Monday, in last week, the bishop of the diocese consecrated the church of St. Michael, Gloucester, which had been rebuilt from the foundations, under the superintendence of Messrs. Fulljames and Waller, architects; the cost of restoration having been defrayed by voluntary contributions.——On Tuesday, in last week, the new church of the Holy Innocents, at Highnam, was consecrated by the same bishop. This church, with parochial schools, has been erected and endowed at the sole cost of Mr. G. Parry, of Highnam-court, as a memorial of his wife and children, and mainly for the free use of the poor of the immediate neighbourhood. The site for a parsonage-house has been laid out in harmony with the other buildings. The church, consists of chancel, chancel aisle, nave, and aisles, with lofty tower and spire, built under the superintendence of Mr. J. Woodyer, architect; and no expense, it is said, has been spared by its founder.——On Wednesday following, the new church of Hucclecote, in the parish of Churchdown, near Gloucester, was consecrated. This poor parish (value 88*l.* per annum) is a perpetual curacy in the patronage of the Dean and Chapter of Bristol, who receive the tithes, amounting, it is said, to more than 700*l.* per annum! The little church has been built by voluntary contributions, and endowed by the public, with 30*l.* a-year. The Dean and Chapter of Bristol have contributed 100*l.* towards the building.——The new church lately consecrated at Warmley, in the parish of Siston, consists of chancel, nave, and aisles, west tower, south porch, and north sacristry. The style is decorated. The material is the blue stone of the neighbourhood, with Combe-down dressings, the roof of red stone tiles. The east window is filled with glass, by Mr. Hudson. It is of three lights, and represents the Nativity, Crucifixion, and Agony. The tracery in the head contains only geometric figures. The tiles throughout, says Felix Farley, "are Minton's, who seems to have secured a monopoly in this essential article of church furniture. Unfortunately a monopoly always entails exorbitant prices, and Minton's tiles are enormous. They are very beautiful, but that is no reason why poor churches should be debarred the possession of them. Why should plain black or red tiles be 1s. 4d. per foot, when any manufacturer could make them for 6d.?" The roof is open timber throughout. In the nave and chancel the collars are strengthened with curved braces. In the aisles tie beams are employed. The timber is red deal stained, and the spaces are plastered. The same writer asks, "Why do not modern architects board

behind the rafters? The white plaster quite destroys the dark shadow of an open roof. At St. Mark's, Easton, this is partially avoided by a slight stencilling on the plaster, but the dark wood would have a far finer effect, as may be seen in any old roof, and then the principal beams might be relieved by a little illumination." The seats are all open, and the greater part are appropriated. The architect is Mr. Harrison, a cousin of Mr. Pelly, the late rector of Siston, who projected the undertaking. The site was given by Mr. Davidson. The east window is his gift. Upon Mr. Pelly's death, his widow and family carried on the work; and to the 500*l.* with which he had headed the subscription list they added other handsome donations. The first stone was laid by Mrs. Dickenson, of Siston Court, who placed under it a portion of the rock of Mount Zion, provided for the purpose by the late Vicar of Bitton, who has also by advice and opinion been instrumental in carrying on the building. —Bosbury church, Herefordshire, has been restored and reopened.——The committee for the restoration of St. Botolph, Boston, met on Friday week, to receive plans for the extensive work to be effected in the church. There were ten plans presented, and two or three tenders for warming the church. The selection mentioned in another place was made on the following day. The whole of the plans will be exhibited at the Assembly-rooms to the subscribers.

HOGARTH'S TOMB IN CHISWICK CHURCHYARD.

Surely a tomb containing such names as Hogarth, Garrick, and Thornhill, is worth preserving,—at all events, the beautiful lines inscribed on it by Garrick to the memory and talent of Hogarth are. At present neither the one nor the other is *scarcely visible, and, unless a person knew the tomb, it would be passed unnoticed.* It would reflect great credit on those connected with the church and parish to reinstate the inscriptions at so trifling an expense as it would cost. These are Garrick's lines inscribed on the tomb:—

"To thee, great painter of mankind,
Who reached the noblest point of art,
Whose pictured morals charm the mind,
And, thro' the eye, correct the heart.

If genius inspire thee, reader, stay,
If nature move thee, drop a tear,
If neither touch thee, pass away,
For Hogarth's honor'd dust lies here.
"D. Garrick."

RUSKIN AND HIS REVIEWERS.

In an article on the "Stones of Venice," in the new number of the *British Quarterly*, we are told to look for important changes as the almost inevitable results of Mr. Ruskin's philosophical criticisms and novel doctrines in architecture. "It is impossible," says the writer, "that the modern systems of architectural practice and criticism can survive this blow. We venture to predict that some of the laws herein promulgated will be loudly and almost universally protested against by professional architects, and as universally, though silently, and perhaps tardily and sullenly, adopted by them."

It does not at all appear, however, that Mr. Ruskin's architectural writings have as yet made much impression upon "professional architects," or that they give them any concern. Even if disliked by professionalists, they are not protested against by them,— certainly not loudly, or indeed openly in any way. Those belonging to the profession take Mr. Ruskin's attack on almost every thing connected with established theory and practice, remarkably quietly; probably, because they are of opinion that if it be left to itself, his doctrine will fall to the ground, and be, if not forgotten, remembered and referred to only as the visionary speculations of one who shows himself determined to be original, *coûte qu'il coûte*. It is possible, however, that their silence will be differently interpreted,— be attributed to their inability to justify their present practices, or to gainsay any of the accusatory and condemnatory argumentations directed against them by Mr. Ruskin, who has set himself up for being an infallible authority in matters of art and sound taste, and is therefore likely to pass for such among the many.

That such would be the case is anticipated by the writer in the *British Quarterly;* and the consequences thereupon ensuing are briefly pointed out as follows: "It is among the 'unlearned' that Mr. Ruskin will find his first proselytes; and to these, indeed, it is that he particularly addresses himself, well knowing that the *amendment* of the professional architect cannot be better secured than by amending the taste of his paymaster, the people. Modern architects commonly evince supreme contempt, not only for all unprofessional opinions concerning the more difficult questions of construction, and distribution (?), but also for all 'amateur' opinions concerning the eminently popular question of architectural effect. This is a trick of the craft to conceal their incompetence and bad faith, and its success hitherto has been owing to the foolishness and false humility of the people, who have not done more wisely in this matter than if they had believed a botanist's assertion of the impossibility of being sensible to the beauty of a flower without a professional acquaintance with botany:" against which last remark nothing can be urged.

It appears, then, that Mr. Ruskin's doctrines are likely to gain with those who virtually possess influence over the destinies of architecture, although they do not at present care to exercise it,—being content to follow, instead of directing and leading; and his doctrines are calculated to produce such a complete revolution in architectural study and architectural taste, that a very great deal of what has hitherto been considered orthodox with respect to both, will become obsolete, and be rendered a dead-letter. He strives hard to put us out of conceit with all the architecture of our country, whether it be mediæval or modern. According to him, the style of the new Houses of Parliament is no better than Gothic put into a strait-waistcoat of Perpendicular lines! While as to our public structures, generally, they all exhibit and exemplify in a greater or less degree "the baseness of the schools of architecture, and nearly every other art, which have for three centuries been predominant in Europe."

So far, too, from our endeavouring gradually to wean ourselves from these schools, and shake off their influence, we have of late taken them again into special favour,—as Pall Mall can testify. When, lo! comes Mr. Ruskin, and tells us we are all utterly wrong; and, to increase our mortification, that equally dogmatical and insulting judgment is, if not actually applauded, suffered to pass unchallenged and unreprimanded; none of his numerous critics caring to call attention to such delicate points, or, indeed, to anything that would require them to dissent from the *dicta* of one whom they would have us regard as an oracle.

It is not to be denied, that the spirit of what was Renaissance, when it first came up, has been stifled by arbitrary rules and the routine founded upon them. It has been checked, chilled, and benumbed; wherefore it requires to be now awakened and re-invigorated, and to be set at liberty again, in order that it may now do for us what it did for its originators about four centuries ago, before it became systematised and formalised. It certainly calls for correction, but it is also very susceptible of improvement. At any rate, it does not deserve the unqualified and sweeping vituperation bestowed on it by Mr. Ruskin, who very cavalierly, and somewhat savagely too, denounces it as "the pestilent art of the Renaissance;" which summary condemnation convinces us of nothing more than his own decided antipathy to it. And surely there must be something very peculiar in that gentleman's idiosyncrasy when we find him, on the one hand, so furiously intolerant of all Renaissance and Palladianism, and, on the other, so dotingly enamoured of the ducal palace, and St. Mark's, at Venice, in which last he is pleased to behold supreme *loveliness!*—the very last quality which any one else would ever think of attributing to that grotesque pile.

We must not tamely allow ourselves to be brow-beaten by Mr. Ruskin, or suffer his crotchetty fancies to upset all previous architectural teaching. Crotchetty he is even as a writer; for his style is frequently the very reverse of what is suitable for conveying didactic information and criticism, it being eminently fantastic, and not a little mystical and studiedly obscure also. Nor is it even original, since it is only Carlyle, and his un-English mannerism, at second-hand.*

Zeta.

THE LATE JOHN HENNING.

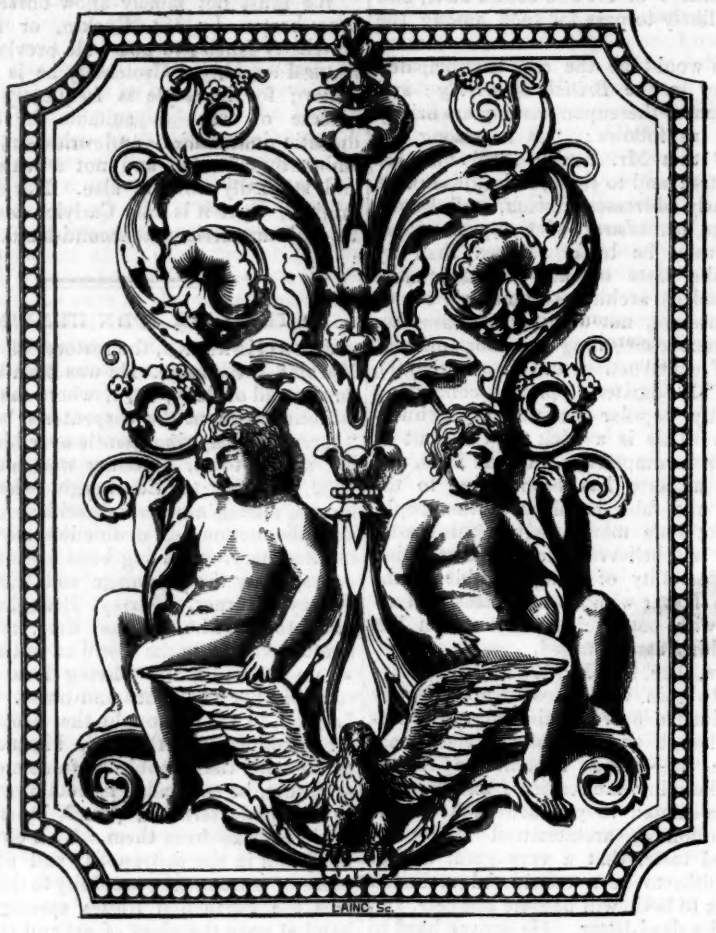
John Henning, the restorer of the Elgin Marbles, is no more. He was born in Paisley, on the 2nd of May, 1771, where the genius of art found him at the carpenter's bench, and "threw her inspiring mantle over him." From his native town, Henning was induced, in 1802, to repair to Edinburgh, where he acquired, during nine years' residence, considerable distinction,—a distinction all the more meritorious from having been fostered and encouraged by the patronage and friendship of Jeffrey, Horner, Murray, Brougham, Scott, and others, who, at that time, adorned the Scottish capital in the world of letters, and of whom he has left the "living form and pressure" in his medallions and busts. A visit to London, in 1811, brought the Scottish sculptor in contact with the Elgin Marbles. Fascinated with these noble fragments of Grecian sculpture, he succeeded in obtaining, contrary to academic formula, permission from Lord Elgin to draw from them. This circumstance fixed him in the metropolis, and after twelve years of unremitting assiduity to their restoration, the Parthenon friezes sprung from his hand at once the glory of art and the admiration of the age. No sooner, however, had the friezes of the Parthenon appeared, than piracies of them, as much injurious to art as disreputable to humanity, deprived the indefatigable artist of nearly all the profits of his labour, tending, besides, to damage his reputation from their utter imperfectness. To his Elgin friezes succeeded the cartoons after Raphael, works of like transcendant merit, in which is faithfully preserved the truth of the original, and which elicited the encomiums of Flaxman and Canova. By these reproductions of Grecian and Italian art, the fine arts have received an invaluable assistance.

Thus has that flame, kindled in obscurity, but gathering as it grew fresh lustre, as much from the difficulties surrounding it as from the noble sources by which it has been fed, closed its brilliancy amid the halo of a reputation seldom attained in a position so unfavourable to the development of artistic talent.

City Tolls.—In the good old times, "when London was paved with gold," I opine—they had a law (and have it now, doubtless) that no cart, wain, or carriage should presume to traverse London streets with any iron tier on the wheels, and it is not very far-fetched to imagine, when that law was modified, it was done so as a favour to the outside barbarians that they should pay a toll in lieu of coming in untiered. This toll still remains: whether you take them in food, or buy their wares at a good profit to them, still, *in* and *out*, the toll must be paid. This is the time of liberal gifts: St. Paul's has given up the twopences, the Abbey the monument fees, and, let me be able to say, the Great City has given up the toll on carriages, to, at least, the dwellers within the circuit of five miles of their City—*a little* for love, and the rest for *justice*—seeing their carriages do not pay toll to any of the outsiders. This is but fair play; and fair play hurts nobody.—Westminster.

* Since writing the above, I see by a notice of it in this week's Builder (May 3), that a publication has appeared, in which, it seems, Mr. Ruskin is taken to task, and Renaissance is defended against his indiscriminate censure of it as altogether worthless, and even pernicious. Still, what has been said elsewhere in opposition to Mr. Ruskin's doctrines, need not stand in the way of the remarks which I here offer.

PANEL, ARMY AND NAVY CLUB.



PANEL, ARMY AND NAVY CLUB.

WE add to our illustrations of Messrs. Jackson's *papier mâché* decorations at this club, the annexed panel from the morning-room.

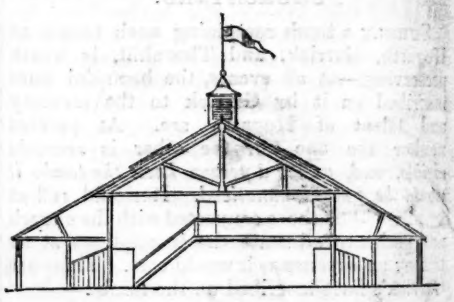
RAILWAY JOTTINGS.

A SHOCKING accident occurred on Wednesday in last week, in the Sutton tunnel, on the Lancashire and Cheshire Junction line. This tunnel is upwards of a mile in length, under the district of Sutton-on-the-hill, near the Frodsham station. Three trains were employed with passenger traffic connected with some races at Chester, and running in the same direction almost simultaneously, a dangerous circumstance perfectly well known beforehand. The first train stuck in the tunnel, from slipperiness in the rails, it is said, but let us add also from want of such a simple remedy in such a state of things as powdered chalk, which has been found completely to obviate slipperiness of rail. The second train, having a careful driver, came slowly up without mischief done, but the third drove recklessly into both at a speed of 25 miles an hour, smashing carriages and killing and maiming in the midst of the darkness in the tunnel. Five passengers were killed on the spot, two died shortly afterwards, many were wounded, and doubtless many will never recover from the shock. The want of a corrective to the slipperiness of the rails is not the only blameable neglect here. There must have been no signals, either telegraphic and connected with the tunnel, or along with any one of the trains, or at least such signals as there were must have been neglected. We hope that an example will be made of the really guilty, whoever they may be, and that one of the criminals will not be deemed a sufficient scape-goat for others who may be still more guilty.——A grand banquet is to be given to Mr. R. Stephenson in honour of his engineering skill and success in carrying out the Holyhead railway and the tubular bridges.——There is a singular process being carried on at present at the Britannia-bridge —namely, roofing the tubes, so that the tops be kept free from wet and the consequent atmospheric action. A complete ridge is placed over both tubes, with a walk in the centre, and the framework is all covered over with cloth rendered impervious to the wet. It will require about 7,000 square yards of cloth to accomplish the work.——The construction of the great central station at Birmingham is at length begun. Plans have been prepared, specifications are in the hands of contractors, in the space of a month the works will be in full operation, and before the end of the year there is every probability, according to the local *Journal*, that the Birmingham traffic from every quarter of the kingdom will centre in New-street. The lines to be accommodated under the immense roof are the London and North-Western, the Midland (including the Birmingham and Bristol branch), the Shrewsbury and Birmingham, the South Staffordshire, and the Stour Valley, the station thus acting as a centre from which will radiate communication with every part of the country. It will, however, be entirely a passenger station. The carriage-drives will be paved, as the approach is to Euston-square station, but all thought of a magnificent structure is abandoned. The front towards the approach to New-street will be in a plain and simple style of Italian architecture. It will consist of a colonnade and two wings, to be pointed with stone. There will be no ornamentation or pretension to architectural effect beyond that which may result from correct proportions and an appearance of substantiality. In the centre of this building will be the various booking offices, and on either side are arranged a double set of waiting rooms, and a refreshment room, extensive suites of offices adjoining. The general egress from the station will be by Great Queen-street. The whole of the vast area of station will be covered in; but it is not yet settled, it is said, whether the roof is to be in one span of 200 feet, or in three. By the conditions, the contractor will be required to finish the whole of the works by 31st December next, under penalty of 100*l.* per week for every week's delay.——Two workmen at the South-Western railway works at Nine Elms were fined 20s. and costs last week, or be imprisoned for 14 days, for striking their foreman. The workmen had been summoned for breach of contract in an alleged combination to abscond from work.——Disturbances have arisen on the Bangor and Carnarvon line, where the English and Welch navvies have combined against the Irish, and struck work till the Irish be discharged.——The Emperor of Russia has approved of the plan submitted to him for a railway between Warsaw and St. Petersburgh. The expense will be, it is estimated, about 80,000,000 of roubles (rouble somewhat more than four francs). The works on the railway between St. Petersburgh and Moscow are urged on with great rapidity, and it is believed that the whole of this important line will be open to the public on the 1st November.

BATTY'S HIPPODROME, KENSINGTON.

THE Hippodrome which has been formed for Mr. Batty in the Kensington-road (at the corner of Victoria-road), being the first construction of the kind which has been put up in the metropolis, we give a plan and view of it, together with a plan and section of the riding-school and stables attached. From the first it will be seen that the longest diameter of the oval is 360 feet, the shorter diameter 260 feet. The size of the posts which carry the roof is 6½ in. by 6½ in.; cill, 9 by 3; purlins, 6 by 4; rafters, 6½ by 6½; braces, 6 by 4; and back rails, 6½ by 6½; the cornice and facia are together 6 feet deep.

The arrangement of the stabling, with the riding school in the centre is very good. The annexed section and plan will explain it.



The scantling of the timbers of the roof over this part of the establishment is as follows: viz. binders, 9½ in. by 4½ in.; king posts, 9 by 4½; principal rafters, 7 by 4½; struts, 4 by 4½; common rafters, 4 by 2½; purlins, 6 by 4.

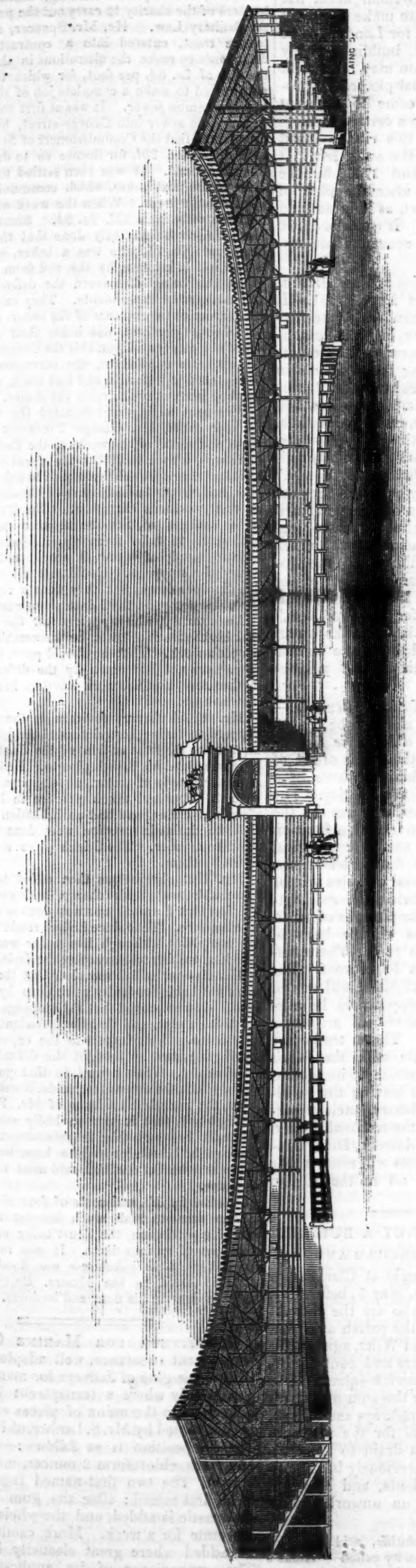
The plan and section of the stabling are drawn to a scale of 32 feet to an inch: the plan of the hippodrome to a scale of 100 feet to an inch. The sectional view is on the line A. B. marked on the plan.

The top and back of the enclosure of the course is entirely covered with slate on boarding. The colours employed in decorating it are blue and white. The entrance to the course from the stables is through the opening enclosed by curtains, seen in the centre of the view. The gallery above is for the musicians: there is a similar gallery on the opposite side.

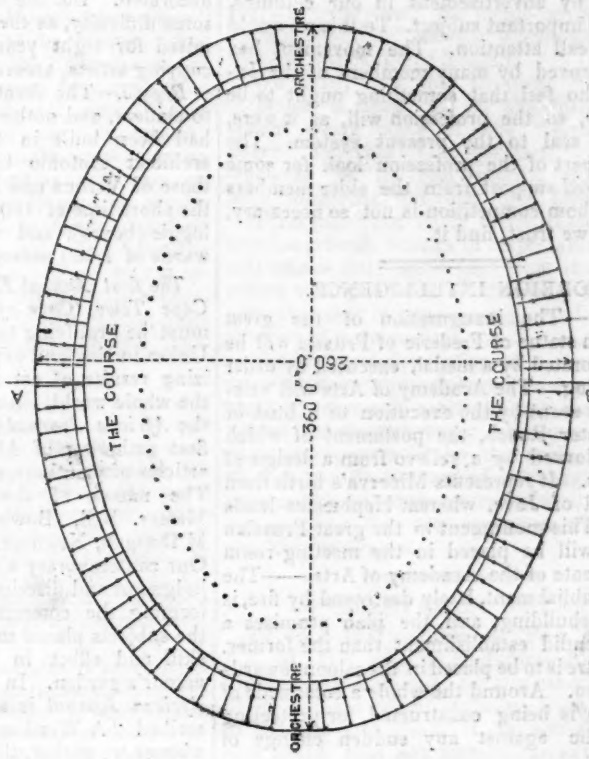
Mr. Taylor was the architect employed; and the works were executed by Messrs. Haward and Nixon, under the superintendence of Mr. Whittaker, in little more than a month.

Of the stirring entertainments provided here by Mr. Batty, we may find another opportunity to speak.

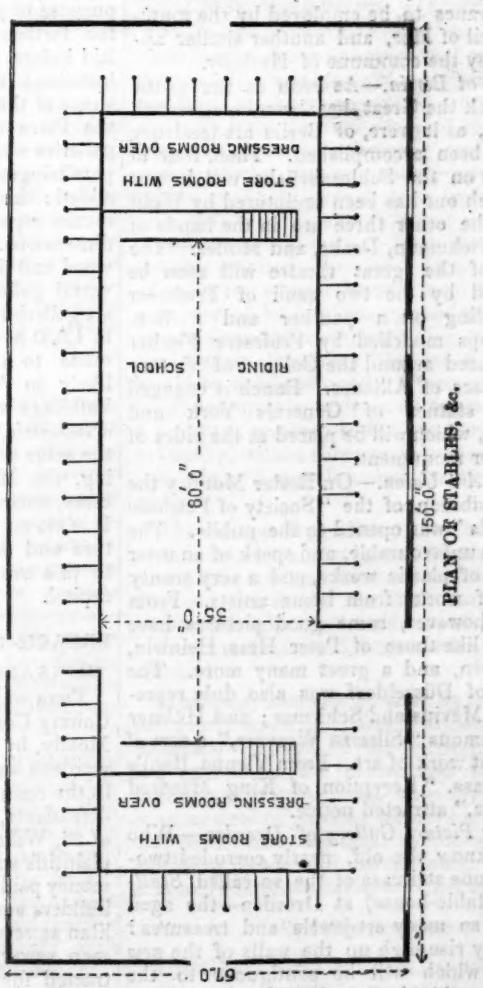
A GROWING TOWN: PROSPERITY IN IRELAND.—While in several of the large towns in Ireland, scarcely a mason, bricklayer, or carpenter is at work at this season, we, in Belfast, are in a position to give employment to a large number of useful and steady hands in connection with the building trade. There are now completed, in course of erection, or about to be erected, the sites having been selected within the last few months, no fewer than from 300 to 400 new houses. This, at the outset of the building season, promises tolerably fair. In the course of a month from this, there will not, we are credibly informed, be a smaller addition to the above than from 300 to 400 new houses; about one-third of which will, we understand, be the speculation of one of our merchants.—*Belfast Newsletter.*



BATTY'S HIPPODROME, KENSINGTON.



PLAN OF HIPPODROME.



PLAN OF STABLES, &c.

AMENDMENT OF ARCHITECTURAL COMPETITIONS.

THE Architectural Association being anxious to carry into effect that which was proposed in their report upon architectural competition, while London is full, have called a public meeting, by advertisement in our columns, upon this important subject. To this we would strongly call attention. The movement has been approved by many members of the Institute, who feel that something ought to be done *now*, so the profession will, as it were, set their seal to the present system. The younger part of the profession look for some *disinterested* support from the elder members of it to whom competition is not so necessary, and will, we trust, find it.

FOREIGN INTELLIGENCE.

Berlin.—The inauguration of the great equestrian statue of Frederic of Prussia will be commemorated by a medal, executed by order of the King. The Academy of Arts will celebrate this event by the execution of a bust of the sculptor Rauch, the postament of which will be adorned by a relievo from a design of Cornelius. It represents Minerva's birth from the skull of Jove, whereat Hephæstos lends his aid. This monument to the great Prussian sculptor will be placed in the meeting-room of the senate of the Academy of Arts.——The Kroll establishment, lately destroyed by fire, is already rebuilding, and the plan promises a more splendid establishment than the former. The theatre is to be placed in the saloon towards the garden. Around the whole a colonnade of wood (!) is being constructed, for protecting the public against any sudden change of weather.

France.—Another Legacy for the public good.—M. Hême, a merchant, of the little town of Mer (Loire-et-Cher), lately deceased, has left his whole landed property for buildiug, at his native place, a hospital, endowed with an annual income of 20,000 francs; an annual rent of 1,500 francs to be employed by the municipal council of Mer, and another similar annual sum by the commune of Herbilly.

Art-Stir at Berlin.—As soon as the statue of Frederick the Great has been inaugurated, a great *act*, as it were, of Berlin art-tendency will have been accomplished. Then, four of the groups on the Schlossbrücke will be put up, of which one has been sculptured by Wolff at Rome, the other three are in the hands of Messrs. Wickmann, Drake, and Möller. The staircase of the great theatre will soon be ornamented by the two genii of Professor Tieck, riding on a panther and a lion. Four groups modelled by Professor Fischer will be placed around the Column of Victory on the Place of Alliance. Rauch is engaged with the statues of Generals York and Gneisenau, which will be placed at the sides of the Blücher monument.

Prague Art-Union.—On Easter Monday the annual exhibition of the "Society of Patriotic Art Friends" was opened to the public. The reports are unfavourable, and speak of an utter deficiency of plastic works, and a very scanty display of works from home artists. From Munich, however, some good pictures have been sent, like those of Peter Hess, Heinlein, Morgenstern, and a great many more. The Academy of Düsseldorf was also duly represented by Mevius and Schirmer; and Hübner sent his famous "Silesian Weavers," a sort of Communist work of art. From Vienna, Rahl's huge canvass, "Reception of King Manfred in Lucrecia," attracted notice.

The new Picture Gallery of Dresden.—Who does not know the old, nearly corroded two-flighted stone staircase of the so-called *Stallgebaüde* (stable-house) at Dresden—the aged abode of so many art-jewels and treasures? But already rise high up the walls of the *new Museum*, which will be contiguous to the *Zwinger*, combining the whole into one huge square. In two years more the transfer of pictures will have been accomplished, a thing rather urgent, as last summer one of the (double) ceilings of the old gallery fell in, and caused the closing of the establishment for a week. It is contemplated to apportion an especial space to the Madonna del Sisto di Raffaelle, probably the first picture in the world. It is said, that a German artist has proposed to Queen Victoria to make a copy of the Sixtine Heavens-Queen, for London, to be placed also in an especial building, richly decorated. But the execution may meet with some difficulty, as the original picture is promised for eight years to come to different copying artists, according to a certain turn.

Reggio.—The theatre of this city is burnt to cinders, and nothing but the walls left. It had been built in 1740 and 1741, by the architect Antonio Cusini, after the plan of those of Verona and Modena, as it is said, in the short time of 180 days. It contained 160 loggie (boxes), and would accommodate upwards of 1,000 persons.

The first Annual Exhibition of Fine Arts at Cape Town, Cape of Good Hope, 1851.—It must be gratifying to the founders of the Art-Union in England to perceive, how the humanizing results of art are spreading hence over the whole world. According to an article in the *African Journal* (20th February last), this first gathering of African art comprises 509 articles of paintings, models, casts, and medals. The names of the prominent artists are, Messrs. Bell, Bowles, Christian, Chiappini, M'Dougall, Newman, Steedman, and "a lady." Our contemporary also duly acknowledges the judgment and discrimination of the gentlemen forming the committee, who have arranged the subjects placed under their care with much skill and effect in a building of the governor's garden. In the same number of the *African Journal* is also a leading article, inscribed "A Word or two for the Fine Arts," whence we gather, that the latest works on art and architecture published here, are known and appreciated at even this distant point of South-Africa.

Art-Exhibition of all Nations, Brussels.—The plans for the building about to be erected in the yard of the *Musée d'Industrie* for the purpose of placing therein the works of art of the forthcoming great exhibition, have been laid before the Minister of the Interior. The buildings will form a parallelogram in the shape of the *Palais d'Industrie*, with a front on the Place du Musée. To the four principal galleries which occupy the four sides of the parallelogram, two transversal galleries will be added: the latter will be divided in compartments, especially devoted for pictures of small dimensions. The galleries will be built of wood and lighted from the roof. The transversal galleries will have a lower roof. The six galleries forming the Exhibition will extend to 4,000 metres, which is supposed to be adequate to the greatest amount of art-works likely to be forwarded. These temporary buildings will communicate with the *Palais d'Industrie*, to enable the public to inspect, at the same time, and without leaving the building, the Museums of Industry, ancient pictures, natural history, and the national library. It is stated that Messrs. Delacroix, Diaz, Couture and other French artists will send works to this world-gathering of art in the Belgian capital.

BREACH OF CONTRACT BY A BUILDER.

HICKS AND OTHERS *v.* BOREHAM AND SON.

THIS was an action brought at Clerkenwell County Court, on Monday, May 5, before Mr. Moody, by the plaintiffs, who are the churchwardens and overseers of the parish of Hurst, in the counties of Berks and Wilts, against the defendants, who are builders and contractors, of 26, Wilmot-street, Brunswick-square. The plaintiffs sought to recover the sum of 12*l.* for money paid to Messrs. Humphreys and Thirsk, builders and the contractors for the metropolitan sewers, for relaying a drain to the common sewer, which had previously been contracted for by the defendants, and which it was alleged was done in an unworkmanlike manner.

Mr. Spencer, for the plaintiffs, said that his clients were trustees of a charity called "Hicks's Trust." That belonging to this trust were two houses in Grove-street, St. Giles's, Nos. 21 and 22. That in the year 1849, the authorities of the parish of St. Giles, having had it represented to them that the houses in question were not in good condition, and required draining, called upon the trustees of the charity to carry out the provisions of the Sanitary Law. He, Mr. Spencer, as solicitor to the trust, entered into a contract with the defendants to make the alterations in the drains at the rate of 3s. 6d. per foot, for which the defendants agreed to make a complete job of the drainage to the common sewer. It was at first contemplated to carry the sewer into George-street, but it being ascertained that the Commissioners of Sewers would have demanded 20*l.* for license so to do, the idea was abandoned. It was then settled to carry the drain to the next house, which communicated with the common sewer. When the work was done, he paid the defendants 32*l.* 9s. 9d. Shortly after, it was found to be so badly done that the tenant of the house No. 21, who was a baker, was flooded out of his bakehouse by the soil from the drains. Upon this being discovered the defendants came and made some experiments. They said the difficulty arose at the entrance of the sewer, which being out of their province, not being their work, they could not rectify. Upon this the Commissioners of Sewers were applied to, the surveyors of whom pronounced it defective and bad work, and at once set their contractors to relay the drains.

Witnesses having corroborated the above, Mr. Spencer called Mr. George Frederick Fry, surveyor and clerk of the works to the Commissioners of Sewers, who stated that the cause of stoppage was the fixing a 9-inch drain-pipe to a 6-inch drain-pipe, and from the bad levels of the drains as well as their tortuous direction. The drains were so badly constructed, that he at once ordered their contractor to take them up. Had there been a great supply of water it would not have prevented the stoppage. Could not tell who laid the 6-inch pipes down, but they were a very common pipe, and decayed: the 9-inch pipes were very good.

An attorney, who appeared for the defendants, said his clients could not be answerable for other people's work. That he should prove these 6-inch pipes were not laid down by the defendants, and, furthermore, that the work was done in a workmanlike manner.

Mr. Childerhouse, foreman to the defendants, deposed to having superintended the job, and that he had not the least notion of the diameter of the pipe he affixed his 9-inch pipe to. Had there been a proper supply of water, no stoppage would have ensued. Had had much practice in laying down pipes and drains, and had no hesitation in swearing that the drains in question were done in a workmanlike manner. The 6-inch pipes were not laid down by them.

Mr. Humphreys was then called to prove the reasonableness of his charge, and gave it as his opinion that the work was not done in a workmanlike manner. That since he had relaid it, there was no complaint, although less water was used than previous to his reconstructing the drains.

His Honour said it was clear that the defendants were not liable for faulty work done by other persons. It was proved that the stoppage arose from the 6-inch pipe, and that the defendants did not lay that down. With respect to the expense incurred in relaying, that he thought the defendants should be absolved. With regard to that portion of the drain which the defendants made, it was his opinion, from the practical evidence of Mr. Fry and Mr. Humphreys, that it was so badly executed as to make it indispensable to reconstruct it. As no damage had been proved to have been done, he thought a verdict for 3*l.* would meet the merits of the case.

Verdict for 3*l.*, and costs of four witnesses.

The case excited much interest amongst the building profession, the Court being crowded with members of various firms. It was rumoured that the baker whose bakehouse was flooded with the soil, intended to sue Messrs. Boreham for the damage done to his flour and business.

SUBSTITUTE FOR MARINE GLUE.—A transparent substance, well adapted to replace the marine glue of Jeffreys for many purposes, particularly where a transparent joint is required, as in the union of pieces of glass, has been invented by Mr. S. Lenher, of Philadelphia. The composition is as follows:—Caoutchouc 15 grains, chloroform 2 ounces, mastic half an ounce. The two first-named ingredients are to be first mixed: after the gum is dissolved the mastic is added, and the whole allowed to macerate for a week. More caoutchouc may be added where great elasticity is desirable. The convenience of its application with a brush, cold, recommends it for approval.—*Franklin Journal.*

RESTORATION OF ST. BOTOLPH'S, BOSTON.

We are informed that Mr. G. G. Place, of Nottingham, has been appointed architect to the above work, the committee at the same time appointing Mr. Scott as their "Consulting Architect." The restorations proposed by Mr. Place comprise, amongst others, new tracery and stained glass to east window of chancel; new reredos; new chancel floor; complete restorations of south-west chapel, south porch, and west doorway; restoration of clerestory statues; chancel screen; removal of organ; reseating nave with open oak benches; and opening the magnificent lantern of the tower. The inhabitants and their friends have raised above 3,500*l.* in less than two months towards this undertaking, in addition to 3,831*l.* expended upon the material fabric in 1843-1846.

PAINE'S MAGNETO-ELECTRIC APPARATUS

AND THE REAL QUESTIONS AT ISSUE.

As some of our contemporaries, among whom we are rather surprised to see the *Athenæum*, are entirely and curiously in error as to the actual questions at issue in respect to the alleged inventions and discoveries of the American electrician, Mr. Paine, we deem it worth while, as these questions have in the meantime assumed an aspect of decided practical importance and public interest, to point them out with a little more specialty than has yet been accorded them,—and this we feel the more induced to do, that, as commentators, and as claiming for a countryman of our own, in the event of their truth being established, those peculiar views which seem to have led to, or at least to have explained, the alleged inventions and discoveries,—we in particular have been charged, by implication, with ignorance and error by the very parties who have based their own criticisms on an utterly mistaken view of the whole subject.

In the first place, then, it is a complete mistake to assert, as one writer does, that there is "nothing new or extraordinary" either in the apparatus alleged to have been invented by Mr. Paine, or in the facts alleged to have been established by him. There is decided *novelty* in both, whatever fallacy or unreality there may be in either. In the next place, it is as complete a mistake to assert that there *is* anything really "new" in the "views" or "notions" of Mr. Paine, these views or notions being, moreover, merely *his* mode of attempting to explain the singular facts alleged to have been established by the action of his new and peculiar magneto-electrical apparatus.

As to Mr. Paine's "mode of proceeding," apart from his own mere "notions," is there "nothing new or extraordinary" in *this*?—

"When hydrogen alone is wanted the negative wire is made continuous and free to act, *while the positive is interrupted by means of a small glass of water*, into which the broken or separate sections of that wire are dipped without contact. On the contrary, when oxygen alone is required, the positive wire is made continuous and *the negative is interrupted*. When both oxygen and hydrogen are to be eliminated, *as in the ordinary magneto-electric machine*, both wires are made continuous, or neither is interrupted."

New and extraordinary as the two former of these allegations *are*, they only constitute one element in the real "question" at issue as to Mr. Paine's mode of proceeding. By means of this one element of novelty *peculiarity of action* is alleged to be obtained in the magneto-electric machine. By another, namely the association of water with a peculiarly formed helix, *intensity* of action is alleged to be obtained; and by yet another novelty, namely the invention of a peculiar electrode, the *safety* of this *peculiar* and *intense* action is said to be insured.* Here are three great points in Mr. Paine's pretensions, which *must* be *recognised*, however speedily they may be thereupon *refuted*, and to overlook these, and not to recognise their *novelty* at least, betrays a "sad ignorance" indeed of the present state of electrical or magneto-electrical science.

Then, again, as to Mr. Paine's "new views" or "notions," it seems to be imagined that it is sought to overturn the "scientific fact" that "oxygen and hydrogen in combination give us that valuable fluid" water! Now neither Mr. Paine's "facts" nor "his notions" necessarily do so. Not only would oxygen and hydrogen in combination still give us water; but water would still give us oxygen and hydrogen, as indeed is plainly stated on the part of Mr. Paine himself. The following "notions" of Sir Humphrey Davy we are induced here to quote from his collected works, as they seem to have been written, in the spirit of foresight, for this very purpose and occasion:—

"Even if it should be ultimately found that *oxygen and hydrogen are the same matter in different states of electricity*, or that two or three elements in different proportions constitute all bodies, *the great doctrines of chemistry*, the theory of definite proportions, and the specific attractions of bodies, *must remain immutable*. The causes of the difference of form of the body supposed to be elementary must then be ascertained, and *the only change* in the science *would be that those substances now considered as primary elements must be considered as secondary*."

"The *improvements taking place in the methods of examining bodies* are constantly changing the opinions of chemists with respect to their nature, and *there is no reason to suppose that any real indestructible principle has been yet discovered*. Matter may ultimately be found to be the same in essence, differing only in the arrangements of its particles, or two or three simple substances may produce all the varieties of compound bodies. *The results of our operations must be considered as offering, at best, approximations only to the true knowledge of things*, AND SHOULD NEVER BE EXALTED AS A STANDARD to estimate the resources of nature."—Vol. iv., p. 132.

"We know nothing of the true elements belonging to nature; *but* as far as we can reason from the relations of the properties of matter, *hydrogen is the substance which approaches nearest to what the elements may be supposed to be*."—Vol. iv., p. 359.

"If that sublime idea of the ancient philosophers which has been sanctioned by the approbation of Newton should be true, namely, that there is only one species of matter, the different chemical as well as mechanical forms of which are owing to the different arrangements of its particles, then, *a method of analyzing these forms may probably be found* in their relations to radiant matter."—Vol. iv., p. 164.

Sir Humphrey seems to have actually anticipated the discovery of just such inventions as those claimed by Mr. Paine, and whatever be the real merits of these (and however favourably we may have been impressed with a belief in their versimilitude, we remain as open as ever to conviction of their fallacy or falsity, whenever the evidence may appear to lead to that conclusion), nevertheless, we have no manner of doubt that Sir Humphrey's anticipations *will* yet be realised. But it is not by the merely "quasi-scientific" that so sublime an idea and discovery as that just referred to will be either realized on the one hand, or appreciated on the other.

As to the novelty of Mr. Paine's explanatory hypothesis or notion, in which hypothesis the writer in the *Athenæum*, as well as others, has been led to think that the whole strength of his claim lies, let us see how it is even as to that point. Mr. Paine thinks, according to Dr. Foster, in the *Scientific American*, that oxygen may be composed of one substance and positive electricity, while the same substance with negative electricity may be hydrogen:—

"May not *water*, combined with two different imponderable principles, one acting the negative and the other the positive part, constitute oxygen and hydrogen, and may not these two ethereal principles be what some excellent electricians have called the vitreous and resinous electricity? And may they not f:m fire by their attraction or neutral approximation? Then, whenever they are discharged, *water* would *appear*, and if they were discharged when one portion of water was in chemical union with other matter there is no reason why the other portion free from elastic matter should not fix itself, which would account for oxidation."

Now, although this be essentially Mr. Paine's "new view," the words in which this "quasi-scientific" novelty is here quoted, are those of Sir H. Davy himself!

We trust, now that *we* have "robbed it of (some at least of) its absurdities," and shown *where some* of the "errors *somewhere*" lie, that "the question" at issue, whatever be its real merits, will appear in a somewhat different light from that in which it has been lately misrepresented, and that henceforth writers in respectable journals will take a little more care how they charge others with ignorance or absurdity on such a subject merely in consequence of labouring in error as to it themselves.

The plan and description of a *double* apparatus on Paine's principle, with a simple movement by means of a weight, has recently appeared in contemporary columns. As the principle appears to be the same, however, as that already treated of, although the arrangements are necessarily different, we need not describe this new apparatus under present circumstances.

* The "catalizing" of nascent hydrogen, by means of turpentine, without any visible expenditure of carbon or turpentine on the hydrogen so "catalized," constitutes another element in the actual *questions* at issue, the recognition of which, as such, might have been also insisted on in the above enumeration. As for the conversion of water solely into hydrogen, or solely into oxygen, that question is implied in the *peculiarity* of the action of Paine's apparatus: we have something more to say on this subject, however.

PRESERVATION OF OAK.

In your last number of The Builder, "T. M. H." asks to be informed what will prevent oak mullions, or any other work left of its natural colour, splitting from exposure to the sun and wind. I am not certain, or ever heard, that any process can entirely prevent the wood so exposed from splitting; but the following may be found to have some good effects. The oak to be used for mullions, or any kind of joiner's work, exposed and not painted, should be entirely of the heart of the tree; and the lighter the colour of the wood the better to be depended on.

To season it:—The nearer the timber approaches the dimensions required from the saw the more likely is it to get seasoned. It should be placed on the north side of a building, and sheltered from the extremities of the wind and rain. Place one piece upon another, interposing blocks between them; and that the timber may not cleave, but dry equally, daub it over with cow dung. Thus it must remain at least twelve months. After this saw it to the size required; then lay it in a tank or pool of water for several hours; from thence into a copper of boiling water, continuing boiling for one or more hours, according to the size of the timber (steaming the wood no doubt would be nearly as good): afterwards it should be placed upright to drain on the north side of a building, exposed to the wind and rain, and gradually, within three or four months, to the sun, when it may be used for its respective work.

The above suggestions may be found to counteract, to a very great degree, the influence of the sun and wind on *timber*; but I am disposed to think but few carpenters or joiners will take the trouble to effect it by the process recommended, from the length of time required.

Much may likewise be done by the choice of oak grown upon a chalky soil, and felled at *midwinter* (instead of the spring), and in the last quarter of the moon, and immediately barked and planked; and then lay the planks in some pool or running stream for a few days, and afterwards dry them in the air and sun gradually: they will neither cast, twine, nor, it is more than probable, ever rift or cleave.

W. C. S.

Chelsea College.—A petition, numerously and respectably signed, is to be presented to the Commissioners of this Royal Hospital from the inhabitants of Chelsea for the removal of the ugly and unwholesome dead walls now surrounding the grounds and obstructing the view of that national institution.

MACHINES FOR WORKING AND POLISHING MARBLE.*

FOR cutting slabs of marble into narrow pieces, such as shelves, and which is effected by hand with grub saws, a machine called a *ripping bed* is employed, in which as many cuts as may be required in the one slab are effected simultaneously, by an equal number of circular saws with smooth edges, revolving vertically, and fed as usual with sand and water. This machine, represented in fig. 3, consists of a bench about 12 or 14 feet long, 6 or 7 wide, and about 2 feet 6 inches high: upon the top of the bench is fixed two rails, upon which a platform mounted on pulleys is drawn slowly forward by a weight. The horizontal axis carrying the saws revolves about 9 inches above the platform, and to ensure the rotation of the saws, the axis is provided with a projecting rib or feather extending its whole length. The saws are made as circular plates, about 17 inches diameter when new. The saws, or cutters, are clamped between two collars about 6 inches diameter, fitted so as to slide upon the spindle, and be retained at any part of its length by side screws.

FIG. 3.

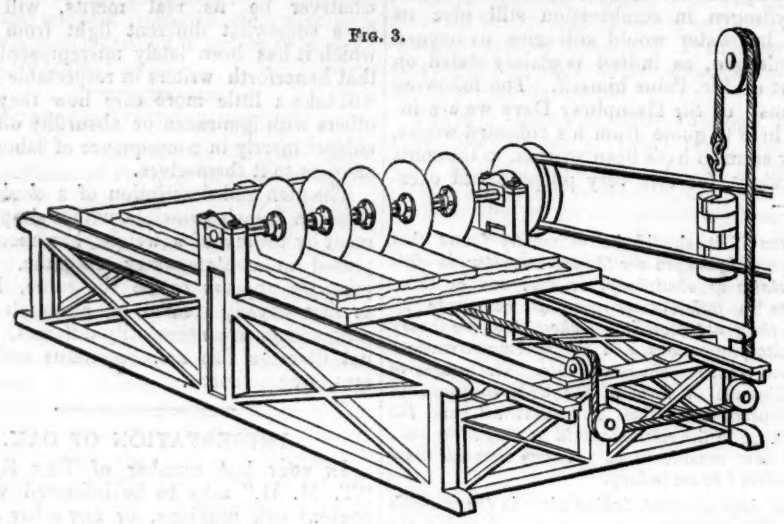


FIG. 4.

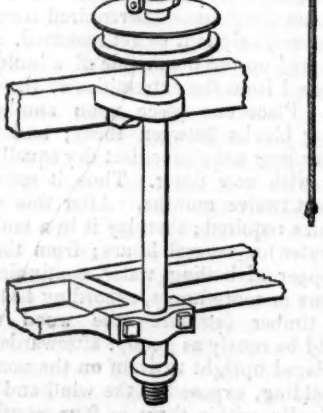


FIG. 5.

FIG. 6.

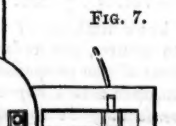


FIG. 7.

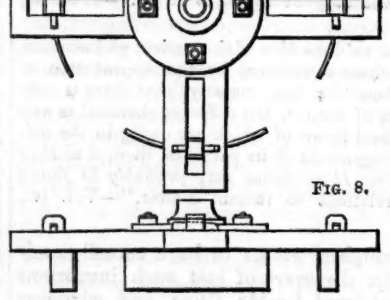
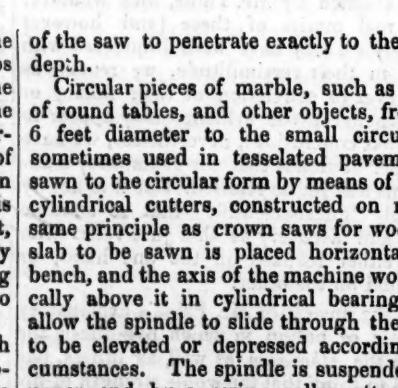


FIG. 8.



The saws having been adjusted to the required distances for the widths of the slips to be cut, and fixed by the side screws, the slab of marble is embedded in sand upon the platform, and the edge of every saw is surrounded on one side with a small heap of moist sand. The saws are then set in motion so as to cut upwards, and the platform is slowly traversed under the saws by the weight, which keeps the slab of marble constantly pressing against the edges of the revolving saws, until the slab is entirely divided into slips.

When the saws are new they nearly reach the upper surface of the platform, and a moderate thickness of sand, just sufficient to form a bed for the slab of marble, raises it high enough to allow the saws to pass entirely through the thickness of the slab; but as the saws are reduced in diameter by wear, it becomes necessary to employ a thicker layer of sand, or to use a supplementary platform to raise the slab to the proper height. To avoid this inconvenience, an improvement has been recently introduced by mounting the axis of the saws in a vertical slide, which is adjusted by a rack and pinion, so as to allow the edges of the saw to penetrate exactly to the required depth.

Circular pieces of marble, such as the tops of round tables, and other objects, from about 6 feet diameter to the small circular dots sometimes used in tesselated pavements, are sawn to the circular form by means of revolving cylindrical cutters, constructed on much the same principle as crown saws for wood. The slab to be sawn is placed horizontally on a bench, and the axis of the machine works vertically above it in cylindrical bearings, which allow the spindle to slide through them, so as to be elevated or depressed according to circumstances. The spindle is suspended at the upper end by a swing collar attached to a connecting rod, that is jointed to the middle of a horizontal lever. The weight of the vertical rod and cutter supplies the pressure for the cutting, and the whole is raised for the admission of the work by a rope attached to the end of the lever, and passed over a pulley as shown in fig. 4.

For circles of small diameter, the cutters are made as hollow cylinders of sheet iron of various diameters, and each attached by screws to a circular disk of cast iron, as shown in section in fig. 6. The cutter is screwed on the lower end of the spindle, just the same as a chuck on a lathe mandrel, except that the spindle is placed vertical instead of horizontal. To ensure free access for the sand and water beneath the cutter, one or two notches, about three-quarters of an inch wide, are generally made in the lower edge.

For large circles, the apparatus is made stronger than that shown in fig. 4, and the vertical spindle is fitted at its lower extremity with a circular plate, to which is bolted a wooden cross, shown in plan in fig. 7, and in elevation in fig. 8: the cross has radial grooves about 18 inches long near the outer extremities of the four arms. The cutters consist of detached plates of iron from 6 to 18 inches long, of various widths, according to the thickness of the work. The cutters are curved as segments of a cylinder, of the particular diameter they are required to cut, and are each rivetted to a clamp that passes through the radial groove, and is retained by a wedge. The number and length of the cutters is solely a matter of convenience, as a single cutter, when put in rotation, would make a circular groove, and several cutters are only employed in order to expedite the process. But every different diameter requires a different curve in the cutters, and which must all be placed at exactly the proper distance from the centre of rotation.

The horizontal bench upon which the marble is laid, is generally a temporary structure, adjusted to suit the thickness of the object to be sawn. Works of large diameter are seldom more than one or two inches thick, but those of small diameter are frequently much thicker, and sometimes three or four thin pieces are cemented upon each other, and cut at one operation. Short pillars are sometimes sawn out of an irregular block in a similar manner, instead of being chipped and turned. And it has been proposed that long cylinders, and tubes of stone, should be cut with cylinders of sheet iron of corresponding length, put in rotation, and supplied with sand and water.

Marble works of small and medium size, are ground flat upon horizontal revolving laps, after the same general method as that pursued by the lapidary, but with a proportionate increase of size in the lap, which is supplied as usual with sand and water. The laps for marble works are made as circular plates of cast-iron, from 6 to 14 feet diameter, and about 3 inches thick when new: they are mounted in various ways upon vertical spindles, so that their upper sides or faces may be about 2 feet 6 inches above the ground. Across the face of the lap, or as it is called the *sanding plate*, one or two strong square bars of wood, faced with iron, are fixed so that their lower sides may just avoid touching the face of the lap, and their edges present perpendicular faces, from 5 to 6 inches high, at right angles to the face of the lap. The wooden bars serve as stops to prevent the work from being carried round by the lap, and also as guides to ensure the work being ground square.

The piece of marble is laid flat upon the lap, with the face to be ground downwards, and the side of the work in contact with the guide bar. Water is allowed to drip upon the plate from a cistern fixed above, and small quantities of sand are thrown on as required. During the progress of the work the workman leans upon the marble, the position of which is shifted occasionally to expose both the work and the lap to an equal amount of wear, and prevent the formation of ridges, but which is less likely to occur with iron laps used for grinding large surfaces of marble, than when small objects are applied upon lead laps, as by the lapidary and mechanician.

The one side of the marble having been reduced to a flat surface, the work is turned over to grind the adjoining face, and the first face is held in contact with the perpendicular side of the guide bar, in order to present the second face of the work to the lap at right angles to the first. When two pieces of similar size are to be ground each on the one face and two edges, as for the upright sides of a chimney-piece, the two pieces of marble are cemented together back to back with plaster of Paris (a process that is called *lining*), and the pair are ground as one piece on all four

* See page 239, *ante*.

faces: in this case the flat sides are first ground parallel to each other, or of equal thickness on the two edges, and the latter are then ground square by placing the sides in contact with the guide bar.

When the lap is of moderate size, one guide bar only is employed, and it is fixed across the diameter of the plate, which then allows of two workmen being employed on the opposite sides; but large grinding plates sometimes have two or three bars placed at equal distances across the face, and four or six workmen may then be employed at the same time upon separate pieces of marble.

The sand and water are continually thrown from the lap by the centrifugal force; and the large size of the works sometimes applied prevents the use of a rim standing up above the level of the lap to catch the wet, as used by lapidaries. Every workman, therefore, stands within a kind of trough like a box, about three feet high, without a top or back: the troughs serve as a protection to the workmen, who would otherwise be exposed to a continued shower of sand and water.

The surfaces of large slabs are in some cases ground upon revolving plates: in this case the axis is placed entirely beneath the surface of the plate, and the slab is traversed by two men over the face of the plate to grind it equally, but the machine next described is better adapted for large slabs of marble requiring tolerable accuracy.*

THOROUGHFARES OF LONDON.

As the town spreads and population increases, the great causeways of intercourse are more thronged with carriages, omnibuses, and wains. The streams of foot passengers also concentrate in the same lines of traffic, and were it not that the public conveyances take the greater numbers, our footways should now be thronged to suffusion, and the same inconvenience felt on them that is experienced in the driftways.

Those trunk lines of communication, such as the Strand, Fleet-street, and Holborn, which were all-sufficient for a city of five miles diameter, and for a population of one million, are closely packed now that the bills of mortality traverse nearly twice that extent, and contain double that number of living souls; and as the habitations and numbers are extended, so, in the same ratio, must the construction of public thoroughfares be felt. That main tube or pipe which might serve for the distribution of water to a second or third-rate town, would not suffice for a great city; and so, in like manner, will the leading streets be inadequate to the objects of free circulation, when the mass of human life seeking a free access through arterial ducts to the Bank (the great curricle of the body corporate), becomes impeded or stagnated in circulation.

In our city there are but two of these great arteries, the Strand and its continuation (which, from St. Mary's to the Exchange, may be called the *via sacra*), and Holborn: when one of these is under repair, then the tide of commerce is turned in a fearful eddy through the bye-lanes, and by circuitous as well as awkward routes, toward their destination: it seldom happens that both are free at the same time, and at the present moment, not only both of these, but most of the great leading streets are broken up and subjected to the slow process of bedding, ramming, and re-cementing.

The principal cause of these upturnings of the adamantine crust is the perpetual changing of gas and water pipes; which latter in particular, it is to be hoped, the Government will either take into hand, or bestow on some individual corporate management.

Little can be objected to the condition of the minor streets of London, which are superior to those perhaps of any other city, but still they are utterly inadequate to the traffic of omnibuses and heavy wains, for which the whole of the great gangways are insufficient, even when all open and free. It is, therefore, manifest that some other, or third line of route, is much to be desired for the purpose of disembarrassing the two central trunk lines.

* To be continued.

It would not be difficult to point out the right direction for this central city road, for it is plain that a course nearly parallel to the river would be the most appropriate, as being the most convenient for commerce and for the disembarrassment of the streets: as heavy waggons proceed at a walking pace, all light vehicles and passenger carriages needing despatch, are impeded by turnings-off, cross purposes, deliveries, and dead locks of the merchandize wains; therefore the line of the wharfs and river stores is clearly the most eligible.

Many plans have been proposed for this purpose, some to continue Thames-street westward towards the Temple; but here again is a dead lock, which, if passed by a loop line on the mud outside the garden, might resume its marginal course as far as Hungerford; yet the boldest innovator must stop appalled at the obstacles presented by Privy Gardens, and so on to Westminster, unless he again *take mud* and skirt the stream fairly on to Westminster-bridge.

The enormous expense of purchasing valuable mansions or business foundations is the real obstacle in the way, for no railway (great though their performances have been) has ever had to deal with the purchase and demolition of so much property.

The river line under high water mark, although the more expensive in practication, would certainly be the cheaper in attainment, for with the corporate sanction it would cost nothing.

So many plans have been given in THE BUILDER for a causeway and quay wall that it is unnecessary to repeat them, or any of them; but whatever may be done in this respect, the public would be much benefited and the great trade of the City facilitated, if sewage, *water*, and gas companies were consolidate under *one authoritative supervision*, and more particularly the water companies, the whole of which should be fused under one direction, to save the community from the perpetual disruption of the highways of life, as well as to pour in an *equable* and unfailing supply of that element which is at present drawn from the most polluted sources.

QUONDAM.

Books.

Land Drainage, Embankment, and Irrigation. By JAMES DONALD, C.E. Orr and Co., London.

THIS is one of Richardson's Rural Handbooks. It will probably be found useful in town as well as country, as some of its pages refer to town drainage specially, and others indirectly. The following remarks on depth and permanency of drainage may be offered as a specimen of the author's style of handling his subject:—

"Permanency is one object which should always be kept in view in draining, and this can only be attained by adopting a considerable depth. Shallow drains are exposed to injury by various causes, from which deep drains are exempt, such as pressure on the surface, the change of temperature, the burrowing of vermin, the penetration of roots, and the irregular entrance of impure water: all these tend to keep the earth around a shallow drain in a state of change which must considerably endanger its stability. The failure of draining hitherto has been owing more to want of skill and care in cutting the drains, and placing the materials therein, than to insufficiency of depth. Yet, when the effects arising from the above causes are considered, it will be seen that failure has often been accelerated by the want of a suitable depth."

The following particulars may be of use to some of our readers:—

"With the variations which occur in soils, and in the cost of labour and materials, it is of course impossible to give more than a general idea of the expense of draining. An outline of the principal items of expense may, however, be attempted, to assist those requiring information on the subject.

If the drains are 14 feet apart, the number of poles or roods (16½ feet) in an acre, will be 188½, and if the depth is 33 inches, the cutting may perhaps be done for 3d. per pole, or 2*l.* 7s. 1½d. per acre. In strong or hard subsoils, it would cost considerably more; but often with proper tools, active workmen, and good management, it need not exceed the above sum. Each acre would require 3,110½ pipes of 12 inches in length, and those of 2 inches bore may cost, on an average, 18s. per 1,000, or 2*l.* 16s. per acre. Collars will cost about half the price of the pipes, or 1*l.* 8s. per acre, making altogether, for tiles and cutting, 6*l.* 11s. 1½d. per acre. If the tiles are 15 inches long, they will be worth about 3s. 7d. per 1,000 more than those 12 inches long, supposing the value of the latter to be 18s. per 1,000. The number of collars required will also be one-fifth less, and this will make a difference of about 1s. 9½d. per 1,000 feet, or 5s. 7d. per acre. If one instead of two-inch pipes are used, the expense may be reduced probably as much as 35s. per acre.

Supposing the drains to be 40 feet apart, the number of poles in each acre would be sixty-six, and if the depth were 4 feet, the cutting would probably cost on an average 6d. per pole, or 33s. per acre. 1,089 tiles, 12 inches long, would be required per acre, and the cost of these, at 18s. per 1,000, would be 19s. 5d. per acre. Collars at half the price would be 9s. 8½d., making, for cutting and tiles, 3*l.* 2s. 1½d. per acre."

The Rookeries of London, Past, Present, and Prospective. By THOMAS BEAMES, M.A., Preacher and Assistant of St. James's, Westminster. Bosworth, Regent-street.

THIS is a subject teeming with interest—painful and plaintive. The working preacher is just the man whose opportunities enable him to treat such a subject fully and efficiently. The author deprecates the necessity which impelled him to adopt a tone of apparent levity in order to insure general attention to a subject of such grave importance. It is not the author, however, who has reason to be ashamed of that, but the levity-loving public, whose sympathies, nevertheless, when they *are* excited, want nothing in warmth or tenderness. In this very readable volume they will find enough to excite them, and, we hope, to leave a lasting impression, all the more that the tragedy is relieved by a little comedy occasionally.

The right feeling and charity of the reverend author in the following remarks we think merit quotation even in our limited columns:—

"It may be very well to plead that the miserable condition of Rookeries is owing to the habits of the labouring population; that the sum of money spent in public-houses bears a large proportion, we forget the exact amount, to the poor-rates of the country. Are there no Rookeries, then, in foreign cities where drunkenness is rare?—do not wretched and dear dwellings produce recklessness and disgust, which in this country vent themselves in intoxication rather than cabals, factions, and insurrections?

Men, even in the higher orders of society, whose homes are not comfortable, seek other resorts, though not confined to a single room, and use stimulants too, though not always such as produce inebriety. But the reading room, and the society to which the purchase of intoxicating liquor *is not the passport*, supply a refuge in the one case, which in the other the tap-room alone affords.

We want a large, comprehensive, national remedy. We must have an Act of Parliament. Let it discard as much as possible that technical language which renders so many of these documents inoperative: let it be compiled by practical men. Let nuisances, Rookeries, fever courts, *et hoc genus omne*, die the death: let them be replaced, not by shops for the tradesman, but by dwellings for the working man: let the number of inmates for each house be fixed, the due supply of water regulated by some provision which shall bring Water Companies to their senses. Let each family have a sitting-room and at least two bed-rooms. This may be done not merely at little cost, but at a remunerative outlay: it has been proved by those lodging-houses which

have been lately erected in St. Pancras and other parts of the metropolis. On the adjuncts to such colonies we will not dwell: there is here a noble field for ingenuity, philanthropy, and religion: our space only allows us thus generally to allude to the subject."

Harrington's Desideratum for the Age. A Masonic Work wherein the first Principles which constitute Nature are explained, as well as certain other Natural Phenomena, the Cause of Poverty and Distress (that dire disease which is now preying on the vitals of mankind) shown, and the Remedy that will remove this Disease and restore all to Health and Happiness pointed out. Gilbert, Paternoster-row.

We have given full scope to the title of this little book in order that the author might thereby at once be allowed to state its objects in his own way. A change, he believes, is at hand, whereby these objects will be attained. Free-masonry is the true mother-church which is to lead us all safely through to a new state of things, and Government must act the part of a father to the people while masonry is engaged with these onerous maternal duties. As to the particular nature of the change predicted, we must refer all interested to the book itself, which contains some new ideas that merit respect at least on account of their originality, whether they be worthy of acceptation or not on account of their truth.

A Hymn for All Nations, 1851. By M. F. Tupper, D.C.L., F.R.S. London: T. Hatchard.

Mr. Tupper thought it would be a sin if men of every nation met together to glorify their own skill, and the wonderful things around them, without some catholic acknowledgment of Him who made them, and he therefore devised a simple hymn, which has been translated into thirty languages, so that all men may, in their own tongue, offer up united praises. The languages are, Hebrew, Sanscrit, Arabic, Chinese, Persian, Hindostanee, Ancient Greek, Latin, Welsh, Irish, Gaelic, Romaic in metre and in rhyme, German, Polish, Norse, Danish, Spanish, Dutch, French, Italian, Manx, Ojibway, &c. and the names of the translators are a guarantee for excellence. In some of the languages there are several versions, and it is interesting to see the different way in which different minds have rendered the same sentiments. The book was printed, and superintended by Mr. Thomas Brettell, to whom, as a specimen of careful and varied typography, it is extremely creditable.

Miscellanea.

Slate.—In a paper read to the Liverpool Polytechnic Society, Mr. Rayner said,—that slate had become an article much more sought after than formerly; that an inch slab of slate is equal to York paving 2 or 3 inches, granite 3 to 4 inches, and marble even 8 to 10 inches thick; that it is an almost perfectly non-absorbent body, for if an inch slab be immersed in water for three months, it will be found, on merely scratching the outer surface, to be perfectly dry underneath; that hence it is not liable, like stone, to be injured by frost; that hence, also, it is extremely useful for chemical purposes, mangers, &c.; and that in this age of competition it has been made to undergo a process of enamelling, which totally changes its appearance and value. During this process it goes through five distinct operations: first, there is the ground coating, burnt in, and afterwards rubbed down to a fine surface to prepare it for the pencil of the artist, who gives it either the appearance of the richest sienna, brocatella, granite, porphyry, or even inlaid work; after which it receives the first coating of enamel, and is again subjected to heat, and again rubbed down. It receives in all three coats of enamel over the painting, all of which having been thoroughly burnt into the slate, at a heat ranging from 350 to 600 degrees, not only protects the work, but secures for it a surface which will carry a higher polish than any other article of a like nature. For out-door work, such as tombstones, monuments, vases, &c., after five, six, and in some instances, eight and nine years' wear, the polish of enamelled slate has been found as good as on the day it left the works.

Stained Glass.—A stained glass lancet window, 20 feet by 4, intended for the north transept of Salisbury Cathedral, is about to be erected by the officers and survivors of the 62nd regiment, in memory of their brother officers and men of the same regiment who fell during the Sikh war. It will be shown at the International Exhibition.——A stained glass window has just been placed over the communion table of Horbury Church. It has been presented by Mrs. Battye, of Huddersfield, in memory of her father and mother. ——A painted glass window has recently been placed in Wallasey Church. The window is a stone one of six lights. In the upper central one is represented the Divine Founder of the church giving it the authority of the keys, with the legend, "Behold! I send you forth." On either side on the upper tier are the figures of Abraham and John the Baptist; and in the three lower lights a bishop, priest, and deacon, each with an appropriate legend. The artist is Mr. Miller, of London, and the window is the gift of the Hon. Sir E. Cust.——The chancel window of Mansfield Church has been ornamented with stained glass. The artist is Mr. H. W. Gough, stained-glass window manufacturer, Nottingham. The window is in the perpendicular style, has five lights, and is divided two-thirds from the bottom by a stone transom. The lights are 18 inches wide. In the centre top light is Saint Peter, under a perpendicular canopy, with a diapered ruby back ground. Below is the dying Saviour under a similar canopy, with a diapered purple ground. On the sides are St. Mary and St. John, and underneath St. Paul. These figures form a third of the window: the remaining two-thirds will contain the following:—St. Andrew and St. James to the left of St. Peter; St. Philip and St. Bartholomew to the right; St. Thomas next to St. Mary; St. Matthew next to St. John; St. James and St. Jude to the left of St. Paul; St. Simon and St. Barnabas to the right; the whole comprising the twelve apostles and the crucifixion, and which we understand it is intended to fill by public subscription.

Important to Valuers.—Parkinson *v.* Lord Galway.—At the Retford County Court, on Wednesday week, a cause was tried before Richard Wildman, Esq., judge, in which Mr. John Parkinson, valuer, Ley-fields, was plaintiff, and Lord Viscount Galway, M.P., was defendant. It appeared that his lordship, being the owner of some land taken by the Great Northern Railway Company, had employed Mr. Parkinson as his valuer. Mr. G. D. Simpson, of Loversall, was valuer for the company; and Mr. C. Paver, of Packfield, was called in as umpire. After the amount of purchase-money had been agreed upon, Mr. Parkinson sent his account to Lord Galway, charging a commission of 2½ per cent. upon the compensation awarded. His lordship forwarded the account to the railway company, who refused to pay it, on the ground that the charge was exorbitant; and Lord Galway being also of the same opinion, refused to pay; upon which Mr. Parkinson brought an action against him; and the sum considered reasonable was paid into court. Mr. Burnaby, of the firm of Talents, Burnaby, and Griffin, solicitors, Newark, appeared for the plaintiff; and Mr. W. E. Smith, of Doncaster, for the defendant. Most of the leading valuers in Yorkshire and Nottinghamshire attended the inquiry; and, after a long discussion on both sides, judgment was given in favour of the defendant—thus establishing the principle that a valuer is not entitled to charge a per centage.—*Doncaster Gazette.*

Burlington House and Greenwich Hospital.—It is a not merely remarkable, but quite unaccountable circumstance, that one of the most noted, and at the same time the most scenic pieces of architecture in the metropolis, should be unknown to the public except by repute, there existing no view or other representation of it, either pictorial or architectural. You will perhaps have guessed that I allude to the colonnades within the courtyard of Burlington House; and should I be mistaken as to there being no engraving of any kind which shows them, you will greatly oblige by informing me where one is to be found. At all events, if one there be, it must be a great rarity; and as the subject itself would be perfectly fresh to your readers, I take the liberty of suggesting a view of that piece of pillared scenery as a worthy and highly desirable illustration for The Builder. Surely there would, on proper application being made, be no difficulty in obtaining permission to have a view taken, because refusal would be such discreditable churlishness as to deserve to be exposed. That Burlingtonian one is not the only piece of architecture which has been ignored by the pencil, for that truly noble pile and grandiose group of buildings, Greenwich Hospital, which is still unrivalled by any work of similar character in this country, has experienced nearly the same fate. Views of it there certainly are, but besides that, putting all of them together, they amount to little more than one or two, being nearly repetitions of the same general view, there is not a single one of any importance as a sufficiently truthful and artist-like production. Yet Greenwich Hospital would afford subjects for an entire volume of pictorial and architectural illustrations, interior views as well as others, and at the same time abundant matter for letterpress; because many would be the victories and the heroes to be recorded in speaking of the pictures in the Painted Hall. Such a work might be made to deserve the name of a national one—an honourable testimonial to British architecture and British valour.—Zeta.

Art Prizes.—Manchester Institution.—The directors of the Manchester Exhibition of Modern Pictures and Works of Art, have determined on awarding one hundred guineas to the artist of the best oil painting not previously exhibited, except at the Exhibition of the Royal Academy of this year, and which has been painted since the year 1849. And the Heywood Gold Medal, and 10*l.* in money to the artist of the best oil painting of a subject selected from sacred or profane history. If the work to which the prize of 100 guineas is awarded shall be of the class competing for the Heywood Prize, then the painter will be entitled to receive both prizes. This liberal proposition ought to lead to a good exhibition at Manchester. A deputation from the council of the Royal Institution have recently visited London on the subject.

Great Central Gas Consumers' Company.—The attempt at amalgamation with the City Gas Company, it seems, has proved abortive. The Great Central Company have passed a formal resolution to refuse any further offers of amalgamation on the part of the City Gas Company "until all future expenses arising from the opposition of that company be first reimbursed." An agreement has been made by the Great Central with the City Corporation to light the streets of London for 10,000*l.* a-year.

Proposed Ride across Kensington Gardens.—A numerous deputation from the inhabitants of Kensington, Paddington, and Bayswater, headed by Archdeacon Sinclair and Mr. Evans, M.P., and accompanied by Lord Robert Grosvenor, M.P., have had an interview with Lord Seymour to protest against the threatened ride.

A Trifling Difference.—The following is a list of tenders delivered on the 3rd inst. to the Directors of the National Freehold Land Society, for half-brick sewers and pipe drains, on an estate at Stoke Newington: Mr. Wm. Beck, architect. Each party took out his own quantities:—

Crook	£4,132
Moxon and Gent	3,331
Bower	2,989
Murray	2,974
Althorp	2,892
Hill	2,860
Hughes	2,847
Radley and Rogers	2,744
Smith	2,175
Batterbury	2,148

AMERICAN SCULPTURE.—STATUE OF GENERAL JACKSON.—The American journals say that the equestrian statue in bronze of Andrew Jackson, which has been for the last four years in progress, under the direction of the statuary, Clarke Mills, is near completion, and will be ready to be placed on its pedestal, in Lafayette-square, opposite the President's House, on the 4th of July next. A part of the figure of Jackson has been already successfully cast. The horse is to be cast very soon. Mr. Mill's processes in casting are said to be entirely original, "whereby results are obtained by speedier and more economical processes than have been heretofore used." The size and weight will be about the same as of the statue of Peter the Great, at St. Petersburgh. It will be one-third larger than life, and will weigh 35,000 pounds. The material used consists of old brass cannon, condemned by the government. The brass guns and mortars captured by General Jackson at Pensacola are to surround the base of the statue.

NOTES IN THE PROVINCES.—The works on the Norfolk Estuary, which some people say are to give a new county to England, are progressing favourably. Upwards of 1,500 men are employed upon them. The new cut in the river, which will shorten and deepen the passage to Lynn, will be completed next year. It is intended that 3,000 acres of land shall be reclaimed by 1853, and 16,000 by 1856.——We regret to learn that the scheme for providing Bath with fountains has been dropped for the present. The general indifference manifested by the public, and the lukewarmness of the majority of the committee, are said to be the reason. The gentlemen, however, who originated the project of a fountain in the Grove, and another in the Institution gardens, have resolved to prosecute their special proposal to a successful issue.——Mr. Beckett Denison is converting a nest of the commonest lodging-houses in Leeds into a model lodging-house.——The inhabitants of Lutterworth, Leicestershire, have now had their town lighted with gas for several weeks, and they are so much pleased with the improvement that they turned out on the day of formal opening, on the 28th ult., which they celebrated with music, and with feasting both for the body, in fish, flesh, and fowl—all cooked by gas—and for the mind, in lecturing on the subject of the general rejoicing.

THE EDINBURGH ASSEMBLY-HALL STRUCK BY LIGHTNING.—On Tuesday, in last week, the Assembly-hall on the Castle-hill was severely injured, and made a narrow escape from being altogether destroyed. The lightning struck the centre of the south face of the church, and, passing down the zinc astragals of one of the windows, entered the interior, and ignited a portion of the wood-work. The fire rapidly extended; and, in a short time, a number of the oak benches were in flames. The fire was extinguished, but not until three of the benches, with cushions, were consumed, and as many more damaged, while the lath-work of the south wall was scorched and burned to the height of nearly twenty feet. *The spire has no lightning-conductor.* Mr. Adie, brother of the engineer, saw the church struck, and is of opinion that the gas-pipes near the window alone saved the whole face of the building as a substitute for a conductor, and that a proper conductor would have prevented damage altogether.

THE SEWERS RATE.—In answer to a question from Sir B. Hall, in the Commons, Lord Ebrington stated, on Tuesday last, that the rate of 6d. in the pound was only levied on eight districts, with a rental of 4,400,000*l.*; that a great number of new works were proposed—a new system of drainage south of the Thames, arterial drainage north of the Thames, and many others; that the present commission being to expire in course of the year, Government were to bring in a Bill, appointing, he presumed, some new body; but that by that time a great number of the works would be in hand. The bankers (it was understood) were already overdrawn 25,000*l.*, and there were about 20,000*l.* of unpaid liabilities.

MOULDING.—Mr. A. Dixon, of Abercorn Foundry, Paisley, has just specified his patent for improvements in moulding iron and other metals. The invention has relation to a method of forming moulds of green or dry sand for casting cylinder pipes, &c., of iron and other metals. Mr. Dixon claims—the means of making moulds and cores of pipes, cylinders, fluted columns, square tubes, and other castings of a similar nature, as described.

FESTIVAL TO FOREIGN SCULPTORS.—It is proposed by the British sculptors, exhibiting at the Building in Hyde-park, to give a dinner to the foreign sculptors who have contributed to the Exhibition, on Monday, May the 12th. Sir Charles Eastlake, the President of the Royal Academy, will preside.

TO CORRESPONDENTS.

"Water Pipes."—"A supply of water requires to be conveyed across a valley: the spring is 20,000 feet distant and 200 feet higher than the point of delivery: at 10,000 feet from the spring the pipes will be 400 feet below the level of that point, so that in the remaining distance the water has to rise 200 feet. I wish to know what bore the pipe must be from the spring to the lowest point, and what bore from thence to the place of delivery to give 1,000 gallons per hour."—AQUARIUS.

"Subscriber from beginning" (shall be attended to), "J. T." (we have heard nothing of the engraving), "J. J. L.," "W. P.," "W. B.," "Mr. H.," "N. E. S.," "J. H. H.," "G. B.," "Grays" (we have not time to refer), "C. M.," "J. W.," "A. & W. R." (we shall be glad to hear from them), "Mr. H., jun.," "Lady B.," "Pimlico," "*Clericatus*," "R. H." (the letter was accidentally mislaid), "P. S.," "C. C.," "W. B.," "J. F.," "*Palmam qui meruit ferat*" (declined with thanks), "Mr. P.," "F. S." (we cannot recommend), "Clerk of Works of thirty years' standing," "W. K.," "A Subscriber" (under our mark).

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